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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

JANUARY, 1957
VOLUME 54, NUMBER 1

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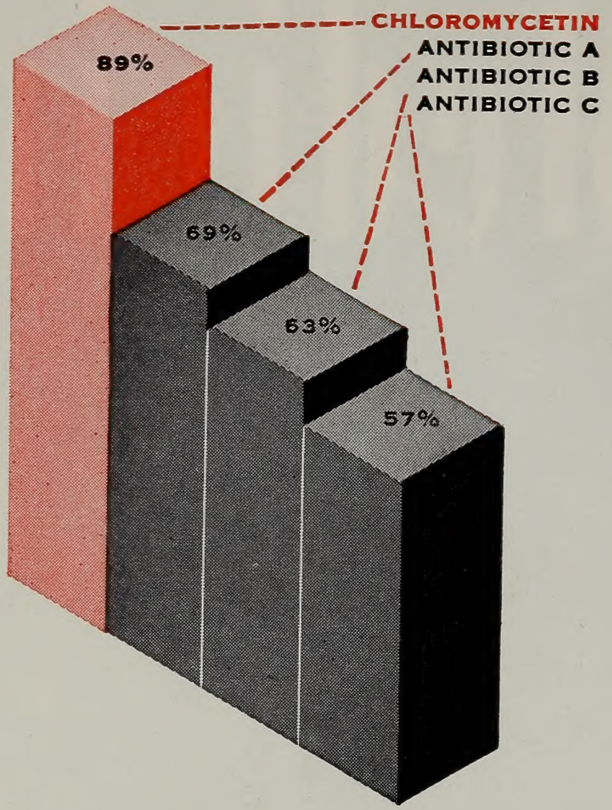

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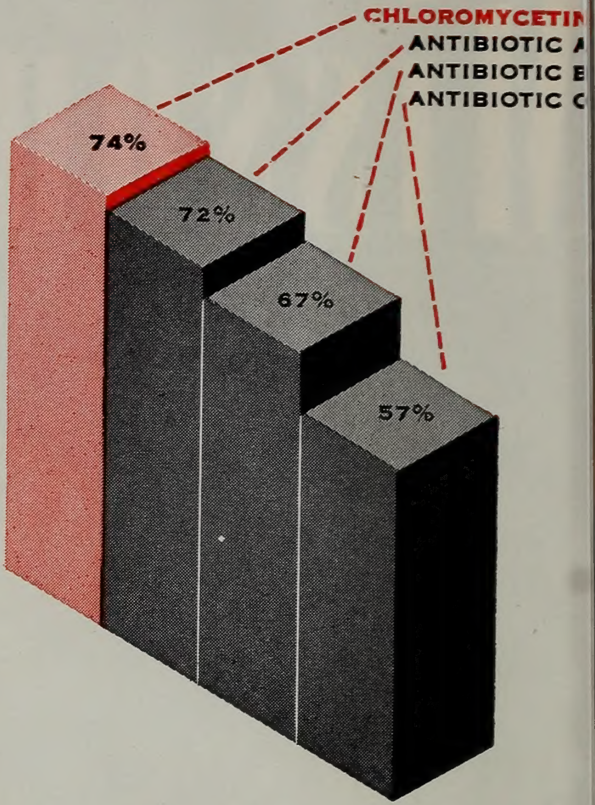

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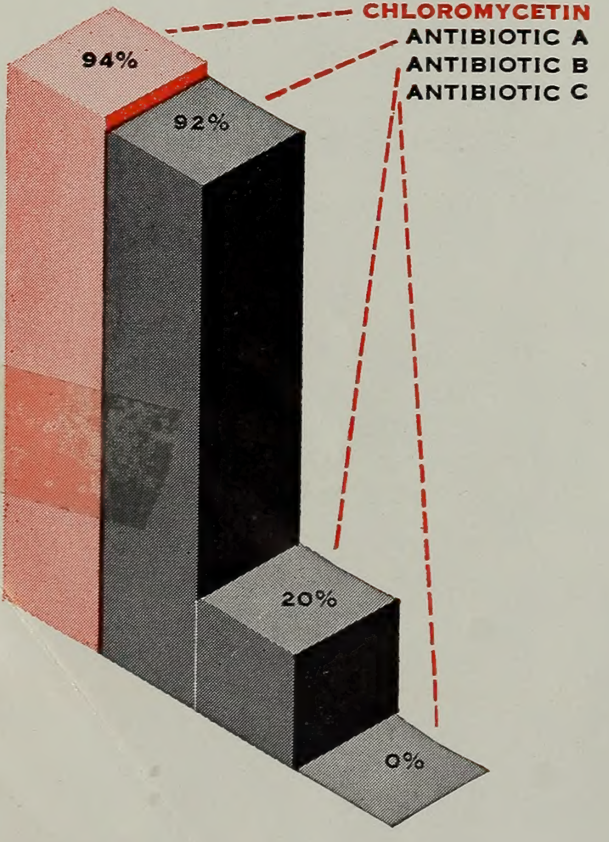

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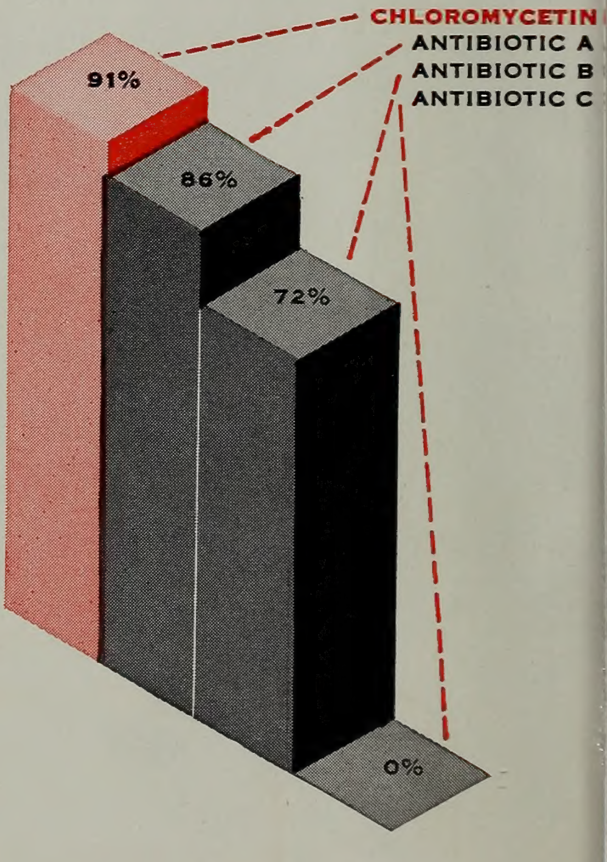

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References (1) Altemeier, W. A.; Culbertson, W. R.; Sherman, R.; Cole, W.; Elstun, W., & Fultz, C. T.: *J.A.M.A.* 157:305 (Jan. 22) 1955. (2) Austrian, R.: *New York J. Med.* 55:2475 (Sept. 1) 1955. (3) Murphy, F. D., & Waisbren, B. A., *in* Murphy, F. D.: Medical Emergencies: Diagnosis and Treatment, ed. 5, Philadelphia, F. A. Davis Company, 1955, p. 557. (4) Weil, A. J., & Stempel, B.: *Antibiotic Med.* 1:319, 1955. (5) Jones, C. P.; Carter, B.; Thomas, W. L., & Creadick, R. N.: *Obst. & Gynec.* 5:365, 1955. (6) Kass, E. H.: *Am. J. Med.* 18:764, 1955. (7) Tebrock, H. E., & Young, W. N.: *New York J. Med.* 55:1159 (Apr. 15) 1955.

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Missouri Medicine

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Curiosa et Trivia

William B. McCunniff, M.D.

Who's nervous? About 35 million prescriptions for ataraxic drugs were written in 1956. Of the ten most prescribed drugs during the year, three were tranquilizing agents. Who's left to be nervous?

Roman Celsus, in the first century A.D., described operations for hernia, calculus, and cataract. He also reported the use of ligature for hemorrhage . . . a fact which was soon lost and not "discovered" until the time of Ambroise Paré.

Artificial respiration started within three minutes of accidental electrocution produces recovery in 70 per cent. Started one minute later, the recovery rate drops to 58 per cent.

There are no educational requirements for practicing medicine in Iceland, provided the "physician's" name is always preceded by the title "Skottulaeknir"—which means "Quack Doctor."

About 1,200 Americans are drowned in small boat accidents each year—practically all fatalities easily preventable. Witness the fact that a significant percentage of the victims set sail without knowing how to swim!

More farmers are affected by arthritis than any occupation group. About one fourth have symptomatic disease.

Capsule Clinics

I. A. Wien, M.D.

- Physicians in different types of practice are tending toward less cigarette smoking; this may be due to a growing interest in the conceivable relation between cigarette smoking and lung cancer. Snegireff, L. S., and Lombard, O. M.: New England J. Med. 252 (April 28) 1955.
- A macrocytic anemia may be observed in liver disease because the functions of the liver in maintaining a storage of erythrocyte maturation factor may be impaired. Harper, H. A.: Review of Physiological Chemistry, University Medical Publishers, Palo Alto, California, 1951.
- The availability of water (water intake) can occur from three sources: liquids imbibed, water of foods, and water of oxidation of foodstuffs in the body. Harper, H. A.: Review of Physiological Chemistry, University Medical Publishers, Palo Alto, California, 1951.

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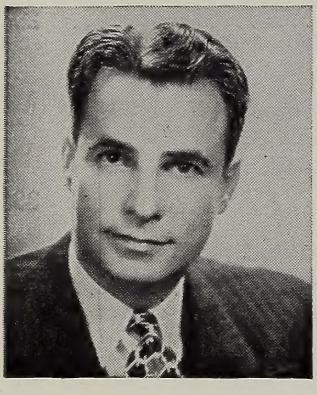
Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO



The Gasconade-Maries-Osage County Medical Society met Nov. 16, 1916, in Smith's Hall at Hermann. The first order of business was the election of officers for 1917, which resulted as follows: President, Dr. Frederick Aufderheide, Drake (re-elected); vice president, Dr. Howard Workman, Potsdam; secretary-treasurer, Dr. John D. Seba, Bland (re-elected). The doctors were taken by Dr. H. J. Rickhoff to visit the Stone Hill Wine Cellars, said to be the second largest in the world. They were furnished an escort through the cellars and many caskets were inspected that had a capacity of over twelve thousand gallons.

The Lewis County Medical Society met at the Hotel Quincy, Nov. 15, 1916. The meeting was called to order by the vice president, Dr. H. E. Dunlop. Motion was made that the society adopt $15 as the fee for normal labor. Seconded and carried.

The Platte County Medical Society met in Platte City, Dec. 6, 1916. Members present, Drs. Naylor, Redman, Hull, Herndon, Clark, Durham, Calvert, Shultz. The report of the secretary and treasurer showed that six meetings had been held during 1916, average attendance five and two-fifths; number of papers presented, seven; number of visitors reading papers, two; amount of cash on hand, $81.65.

The business session of the Buchanan County Medical Society was held at their rooms Wednesday evening, Dec. 6, 1916; forty-six members present, the president, Dr. Charles Geiger, in the chair. The Banquet Committee, through the chairman, Dr. H. S. Forgrave, reported arrangements completed for the banquet to be held at the Hotel St. Francis, Wednesday evening, December 20; plates $2 each.

Arthur Brisbane (the world's highest salaried editorial writer) editorializes in the *St. Louis Star:* Some Doctors Are Enemies of Progress. "The most useful, unselfish servant of the public is the competent, skillful, broad-minded doctor. He gives his time, energy and often his life, to the diseases of others—an unpleasant business. If he makes a discovery that in selfish hands might mean a fortune, he gives it to the world free. On the other hand, there is no more dangerous enemy of progress, and particularly of medical progress, than the self satisfied, ignorant physician, whose mind, if it ever thought, stopped thinking on the day he got his diploma and his license to sell pills and peddle solemn, meaningless talk. When Harvey announced the circulation of the blood, the 'great and learned physicians' laughed at him, declared that the blood is in the body like the juice in an orange—and they went on with their 'bloodletting' first on one side and then on the other, to keep the juice evenly distributed. When Pasteur was announcing one after another of his great discoveries, refuting the stupid theory of spontaneous generation, proving that disease, decay, suppuration, etc., were not caused by 'breaking down of tissues,' but by specific, hostile germs or bacteria, the doctors denounced him and advised him to 'stick to his chemistry and things that he was able to understand.' When one of Pasteur's colleagues announced that tuberculosis was caused by a certain, definite germ, and by nothing else, and that the destruction of that germ would mean the destruction of tuberculosis, he was called in polite terms a scientific idiot. A great medical authority of France with his blue coat and his gold buttons, sneeringly said: 'Then all we need do is spread nets for the tuberculosis germ, and the thing is ended.' When Nathan Straus began his work, based on the discoveries of Pasteur, a work that has spread over the whole world, and saved the lives of hundreds of thousands of children, it was the ignorant doctors that opposed him. And not a few of them oppose him still, some because they are simply ignorant, others for reasons not quite so creditable, perhaps."

TWENTY-FIVE YEARS AGO

The seventeenth annual convention of the Radiological Society of North America was held in St. Louis November 30 to December 4. The society is the largest and most influential organization of its kind on the American Continent. There are approximately 1,400 active members.

Maurice B. Strauss, F. H. Laskey Taylor and William B. Castle, Boston *(Journal A.M.A.)*, present preliminary observations from which it appears that the intramuscular use of liver extract has all the theoretic advantages of the intravenous method and is decidedly practical both from a therapeutic and from an economic standpoint.

London now has an official who decides each day how much air should be admitted to street cars. Windows are locked in positions so passengers cannot raise or lower them.

The seventy-fifth anniversary of the organization of the St. Louis Dental Society was celebrated by a Diamond Jubilee session in St. Louis, December 7, 8 and 9.

The John Scott Medals for 1931 were presented to Professors Philip Drinker and Louis A. Shaw,

(Continued on page 12)

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A savory mint flavor that adds the further certainty of acceptability to antibiotic therapy, particularly for that 90% of the patient population treated in the home or office where sensitivity testing may not be feasible, and where pleasant flavor can make the difference between prescription adherence and laxity.

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Woman's Auxiliary

Mrs. Charles *(Susan)* Shepard, *President*

With "Auld Lang Syne" and "Happy New Year" still echoing in our ears let this January issue of Missouri Medicine serve to remind us of work yet to be finished before our Auxiliary fiscal year comes to a close.

At the National Conference in Chicago in October, we overheard: "These women are the best informed group in American medicine." But before we congratulate ourselves too much on our store of information, we must stop and think how we can best pass it on to the general Auxiliary membership. We deeply appreciate the use of this page in this journal to tell the Auxiliary story to the doctors and for the generous financial assistance in publishing and mailing the *Quarterly Bulletin* of the Auxiliary to its members. The program panorama which the county auxiliaries have adopted to their specific community needs is commendable and is being enthusiastically received. A "points system" has been set up as a guide to achievement on the program and a lovely bronze trophy will again be awarded to the "Outstanding Auxiliary" in Missouri. This trophy has been won twice by the Cole County auxiliary who have already served warning that they are out to win it again.

Dr. David Allman, A.M.A. President-Elect, put these "B's" in the Auxiliary bonnet for 1956-57:

1. BARNSTORMING—Carrying on the program in every village and town where there is an organized medical society.
2. BROADCASTING—To tell the story of medicine in your locality, knowing what to say and when to say it.
3. BEING INFORMED—To be able to help parent society when called upon.
4. BEING ACCURATE—Be factual that people may better understand the aims and functions of the A.M.A.
5. BUTTONHOLING—To correct misunderstandings and misconceptions about medicine.
6. BLAZING NEW TRAILS—in community health fields in cooperation with medical society and keeping up with the new scientific developments.

America is healthier than any other country in the world and we have a stake in keeping it that way.

We believe that the answer to more interest, better attendance and higher membership percentage is just placing a Higher Priority on the work. Editor Mrs. N. M. Reiff of the Ohio Auxiliary *News Bulletin* sums this up with the following ditty:

"We're So Over-Organized!"

You ask me to join the Medical Auxiliary?
That's just impossible, for you see
I belong to so many other things
That I'm as busy as can be!

First, there's my Music Club
I usually attend and just float.
I have no business in it
For you see—I don't know a note.

Then to the Literary Club I go
Tho' most programs are quite dry
For understanding the papers—
I'm afraid I don't even try.

Of course, there's P.T.A. at school
(I feel I owe my children this)
So that Johnny's room can get the banner
I always go—I never miss!

Each Tuesday evening there's D.A.R.
(It's so interesting to follow my Tree)
Ancestors are very nice to know . . .
But I wonder? Are they proud of me?

Oh, there goes Nancy Gray
A nurse she's crazy to be
She doesn't have the money
Nor any one to help her, you see.

You say the Auxiliary has a fund
And has nurses already through?
You'll be glad to give them Nancy's name?
She will be happy, if you do.

"To-day's Health"—What is that?
I'm sure a copy I've never seen.
You say the doctors publish it?
Whatever do you mean?

To go on—there's Cancer Society, Polio and Heart—
I feel I must belong to all.
I'm not much use to them
And my neighbors hate to see me call!

I have my Sewing Club, my bridge club, my golf
But Recreation is a must
I want to enjoy all my friends
I won't sit home and r-u-s-t.

The A.M.E.F.? Sounds like a government group;
Just what is it that they do?
You say it is to train new doctors
And the Auxiliary helps do that too?

It all sounds nice but I can't join—
This town has too many clubs.
We go to so many luncheons
We are all getting fat as tubs.

Mental Health? I've heard of that.
Civil Defense? That's a bore!
You surely cover a lot of ground—
Don't tell me there is more!

(Continued on page 12)

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TABLET

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J. H. Trolinger, M.D.

Post-Assembly Tour Planned

The Board of Directors approved plans at its last meeting for an Invitational Scientific Congress following the St. Louis meeting.

The Lee Kirkland Travel Agency will conduct a tour from St. Louis to New Orleans where the Louisiana Chapter will present a one-day scientific meeting. Members will have a choice of a tour of the New Orleans area or South America.

Inquiries concerning the tour should be directed to the Lee Kirkland Travel Agency, 1231 Baltimore, Kansas City 6, Mo. Inquiries concerning the Invitational Scientific Congress to be held in New Orleans on March 29, 1957, should be directed to the headquarters office.

Additional Category I Courses

The Commission on Education recently considered two special postgraduate courses sponsored by national organizations and conducted by medical school faculties, and classified them as acceptable for Category I credit. The action was taken too late to include in the October and November GP calendar. These courses are:

The seventh annual refresher course of the American Society of Anesthesiologists given in Kansas City, Mo., October 8 and 9, 1956—14 hours of Category I credit.

The course on the treatment and management of fractures, sponsored by the American Fracture Association and conducted by the Cook County Hospital staff in Chicago, November 28 and 29, 1956—15 hours of Category I credit.

It should be noted that these are special courses of these two associations. The annual meetings of the associations are classified as Category II programs.

Doyle McCraw of Bolivar has distinguished himself as the "capsule cognascente" of Missouri. Those readers who attended the Eighth Annual Assembly will remember the huge jar of vertigus capsules at the Burt Krone Company booth; it contained exactly 8,089 capsules. Doyle won the $50.00 award with his learned estimate of 8,150. Anyone desiring special training in Capsule Counting is advised to contact Dr. Doyle C. McCraw, Bolivar, Mo. Instruction in golf is also offered.

Missouri Medicine in Review

(Continued from page 6)

of the Harvard School of Public Health, at the Franklin Institute in Philadelphia November 18 for their invention of the respirator.

Ten members of the St. Louis Medical Society who have practiced for fifty or more years were honored by a Golden Jubilee session of the Society November 24. The occasion was a testimonial to Drs. Carl Barck, J. A. Dickson, Willis Hall, E. F. Hauck, Louis Hauck, H. G. Mudd, Amand Ravold, Max C. Starkloff and H. L. Wolfner, St. Louis, and H. J. Harnisch, Flagstaff, Arizona.

TEN YEARS AGO

E. R. Motley, M. D., Hannibal, was presented a traveling bag by the Marion-Ralls County Medical Society on October 15, marking twenty-one years in practice and his retiring from practice. E. C. Bohrer, M.D., West Plains, was the speaker at a meeting of the West Plains Rotary Club on November 11. Frederick F. Bechtold, M.D., and Clyde B. Abbott, M.D., Springfield, have been appointed to the Springfield City Health Department to fill the places resigned by W. Roland Langston, M.D., and R. C. Conrad, M.D., Springfield. William F. Culbertson, M.D., Kansas City, has been appointed acting manager of the recently acquired O'Reilly Veterans Administration hospital for tuberculosis patients in Springfield.

On December 7, the American Medical Association, in celebration of its centennial in 1947, presented the first in a series of twenty-six NBC dramatized broadcasts on the progress of medicine in the United States during the hundred years of the Association's existence.

Woman's Auxiliary

(Continued from page 10)

Oh, I like to discuss our Medical problems
But, of course, I never dare!
You say if I belonged to Auxiliary
I could always do it there?

But we are so over-organized—
I'm always running in a flutter
But there is lots of truth in what you say—
Medical Auxiliary helps my "Bread and Butter."

I promised to be a helpmate when I married Jim
I meant to further his cause
But you see—I'm too-over-organized
My intentions are all wrapped up in gauze!

It would be ever so nice and sweet if you would carry this bit of spoofing home for the "better half?" to read and then extend to her our sincere invitation and desire to have her join the Auxiliary.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 54 **January, 1957** **Number 1**

A New Oral Electrolyte-Carbohydrate Mixture

Use in General Practice

W. E. HENRICKSON, M.D., *Poplar Bluff*

THE PHYSICIAN in general practice often encounters patients suffering from a variety of fluid imbalances which, in turn, have been caused by a multitude of medical, surgical, obstetric and pediatric conditions. Treatment of the fluid imbalances present in some of these patients requires the exclusive use of parenteral fluids. However, the fluid imbalances present in most patients will respond to the combined use of parenteral and oral fluids, or to the use of oral fluids alone.

A new electrolyte-carbohydrate mixture* for oral use has recently become available. This mixture is patterned after that described by Darrow[1] and his associates in their classic studies on the treatment of infantile diarrhea. The purpose of this paper is to report an eighteen months study designed: (1) to define the role this new mixture might play in the treatment of patients suffering from various types of fluid imbalances, and (2) to evaluate the usefulness of this mixture to the general practitioner of medicine.

METHODS AND MATERIALS

Number and Types of Patients

During the eighteen month period a total of 267 individuals representing a cross section of medical, surgical, obstetric and pediatric patients received the new oral electrolyte-carbohydrate mixture. As a matter of convenience the patients were divided into four groups including: (1) adult surgical patients, (2) adult medical patients, (3) obstetric and gynecologic patients, and (4) pediatric patients.

The clinical diagnoses of patients included in this study are shown in table 1. Seventeen of the medical patients, all 112 of the surgical patients, forty-one of the obstetric and gynecologic patients and seventy-nine of the pediatric patients were ill enough to require hospitalization.

TABLE 1

DIAGNOSES OF PATIENTS INCLUDED IN THIS STUDY

Medical Patients	
Food poisoning	12
Vomiting—nonspecific etiology	2
Diarrhea—nonspecific etiology	14
Vomiting associated with acute cystitis	1
TOTAL	29
Surgical Patients	
Acute appendicitis	70
Cholecystitis with or without cholelithiasis	29
Inguinal hernia	8
Fractures of various types	4
Renal contusion	1
TOTAL	112
Obstetric and Gynecologic Patients	
Pernicious vomiting of pregnancy	4
Conditions requiring Cesarean section:	
Pelvic disproportion	10
Rising Rh titer and history of previous erythroblastotic infants	2
Abruptio placentae	1
Eclampsia	1
Chronic glomerular nephritis	1
Abnormal presentation	1
Complicated vaginal delivery	1
Incomplete Abortion	1
Ovarian cysts	5
Multiple uterine fibroids	18
TOTAL	45
Pediatric Patients	
Diarrhea—nonspecific etiology	56
Vomiting—nonspecific etiology	7
Acute tonsillitis	6
Pneumonia	5
Pylorospasm	4
Congenital hypertrophic pyloric stenosis	1
Salicylate intoxication	1
Severe malnutrition	1
TOTAL	81

COMPOSITION OF THE ORAL ELECTROLYTE-CARBOHYDRATE MIXTURE

The new oral electrolyte-carbohydrate mixture is available only as a powder. The chemical composition of 100 gm. of the powder is shown in table 2. The recommended dilution for the mixture is 80 gm. (8 measures) of powder to one quart of water. (Carbonated beverages or grape juice can be substituted for a portion of the water; in addition, the fluid mixture can be frozen and given in the

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* Lytren®, Mead Johnson & Company, Evansville, Indiana.

TABLE 2

THE CHEMICAL COMPOSITION OF 100 GM. OF THE ORAL ELECTROLYTE-CARBOHYDRATE MIXTURE*

Sodium citrate	3.8 gm.
Potassium chloride	1.9 gm.
Sodium biphosphate	1.8 gm.
Calcium lactate	0.8 gm.
Sodium chloride	0.8 gm.
Magnesium sulfate	0.3 gm.
Citric acid	0.5 gm.
Dextri-Maltose®	90.1 gm.

* Recently the citric acid content of the mixture has been increased to 1.5 gm. per 100 gm. In addition the carbohydrate content has been changed so that 100 gm. of the mixture now contains 10 gm. of Dextri-Maltose® and 79.1 gm. of dextrose. These changes have not altered the electrolyte content of the mixture.

from of ice chips or popsicles.) The composition of a liter of the recommended dilution of the mixture is shown in table 3.

TABLE 3

ELECTROLYTE CONTENT OF ORAL ELECTROLYTE-CARBOHYDRATE MIXTURE (RECOMMENDED DILUTION) IN MEQ. PER LITER

Cations		*Anions*	
Sodium	50 mEq.	Citrate	30 mEq.
Potassium	20 mEq.	Lactate	4 mEq.
Calcium	4 mEq.	Chloride	30 mEq.
Magnesium	4 mEq.	Sulfate	4 mEq.
		Phosphate	10 mEq.
Total	78 mEq.	Total	78 mEq.

Each liter of solution also contains 70 gm. of carbohydrate (280 calories).

In this study no dilution other than that recommended was employed. The importance of employing only the recommended dilution cannot be overemphasized since failure to do so has led to administration of excessive amounts of electrolytes. For the same reason the fluid form of the mixture was not employed as a dilutent for other electrolyte containing fluids such as cow's milk formulas.

The electrolyte composition and concentration of the recommended dilution of the mixture resembles that of the "multiple electrolyte solutions" designed for parenteral fluid therapy by Butler and Talbot.[2, 3] When a patient's need for water is supplied by such a solution, necessary electrolytes are simultaneouly supplied: (1) in amounts that are balanced between minimal needs and maximal tolerances for these substances, and (2) in amounts that permit their selective retention or rejection by the body's homeostatic mechanisms in accordance with body needs.

INDICATIONS FOR USE OF THE MIXTURE

The specific fluid imbalances for which the mixture was employed included: (1) body fluid volume deficits, (2) extracellular fluid total electrolyte concentration excess, (3) potassium deficit, (4) metabolic acidosis, and (5) metabolic alkalosis.

The mixture was also employed to provide maintenance amounts of water and electrolytes to patients whose body fluid status was essentially normal but whose tolerance for a more complete oral nutriment had abruptly decreased, e.g., surgical patients during the immediate postoperative period.

CONTRAINDICATIONS TO THE USE OF THE MIXTURE

The mixture was not given to any patient: (1) whose gastrointestinal tract was not intact, e.g., patients with intestinal perforations, acute intestinal obstructions, (2) those suffering from intractable vomiting, and (3) whose body homeostatic mechanisms (particularly those of the kidney) were not functioning adequately since the mixture contains significant amounts of the potassium ion.

A contraindication to the exclusive use of the mixture was the presence of severe fluid imbalances which required at least the initial use of parenteral fluids.

DOSAGE OF THE MIXTURE

Patients receiving the mixture included: (1) those in whom the mixture was employed as the first source of oral alimentation following an initial period of parenteral fluid therapy, (2) those in whom the mixture was employed as a supplement to parenteral fluids during the entire period of parenteral fluid therapy, and (3) those in whom the mixture was employed as the only form of fluid therapy.

In all three types of patients the mixture also served as the transitional feeding to complete oral alimentation.

Typical daily doses of the mixture administered to patients in whom it served as the sole source of fluid are shown in table 4. The dose administered to patients also receiving parenteral fluids was adjusted in accordance with the patient's total fluid needs and the amount of parenteral fluid administered. The mixture was discontinued as soon as the patient was able to ingest sufficient amounts of other electrolyte containing liquids or foods. Fluid therapy in the more seriously ill patients was guided by repeated laboratory determinations of their blood chemical values as well as by their clinical response to therapy. In many instances, however, only the clinical response of the patient was used to guide therapy.

TABLE 4

TYPICAL DAILY DOSES

0- 1 year	125- 150 ml./Kg.-55 ml./pound
1- 4 years	1000-1500 ml./day
5-10 years	1500-2000 ml./day
Adolescents	2000-3000 ml./day
Adults	2000-3000 ml./day

RESULTS

Studies such as this do not provide results which can be subjected to statistical analysis because of the impossibility of performing control studies employing other types of oral fluids on the same group of patients. Nevertheless our clinical experience indicated that the mixture was valuable: (1) as a supplement to parenteral fluids in patients with severe fluid imbalances during both the initial and recovery phase of therapy, (2) as the sole source of fluid in patients with mild to moderate fluid imbalances, and (3) as a means of forestalling the occurrence of fluid imbalances in patients with decreased tolerance for more complete oral nutriments.

The mixture proved to be convenient for either home or hospital use, was well tolerated, easy to prepare and easy to administer.

Typical case histories are presented.

CASE REPORTS

Case 1. A 3 months old white female was admitted to the hospital because of diarrhea of two days duration. Physical examination revealed an acutely ill "dehydrated" infant.

Laboratory Examination—Examination revealed (1) plasma bicarbonate 16 mEq./L.; (2) plasma chloride 94 mEq./L.

Clinical Diagnosis—Acute gastroenteritis with severe fluid volume deficit and metabolic acidosis.

Treatment and Clinical Course—First Day: Parenteral fluid therapy was begun immediately and continued for the next eight hours; 90 ml. of the oral electrolyte-carbohydrate mixture was offered every three hours. Approximately 600 ml. was taken and retained.

Second Day: Clinically, the child appeared better. Follow-up examination of blood chemical values revealed: (1) plasma bicarbonate 30 mEq./L.; (2) plasma chloride 108 mEq./L. Ninety ml. of the oral electrolyte-carbohydrate mixture or 90 ml. diluted cow's milk formula was offered at alternate three hour periods.

Third Day: Clinically, body fluid status appeared normal. Ninety ml. diluted cow's milk formula was offered every three hours.

Fourth to Seventh Day: Diarrhea was subsiding. On the seventh day the patient was discharged on full diet.

Case 2. An 8 year old male was admitted to the hospital because of nausea, vomiting and diarrhea of increasing severity for three days. Physical examination revealed an acutely ill "dehydrated" child.

Laboratory Examination—Examination revealed (1) plasma bicarbonate 14 mEq./L.; (2) plasma chloride 110 mEq./L.

Clinical Diagnosis—Acute gastroenteritis with severe fluid deficit and metabolic acidosis.

Treatment and Clinical Course—First Day: Parenteral fluid therapy was begun immediately after hospital admission and continued for eight hours; 180 ml. of the oral electrolyte-carbohydrate mixture was offered every three hours. Approximately 1,200 ml. was taken and retained.

Second Day: Clinically the child was much improved. Follow-up examination of blood chemical values revealed plasma bicarbonate 25 mEq./L. Oral electrolyte-carbohydrate mixture, 180 ml., was offered every three hours. Approximately 1,400 ml. was taken and retained.

Third to Tenth Day: Diarrhea subsided. Tolerance for more complete oral nutriments was gradually attained. The patient was discharged on the tenth day.

Case 3. A 36 year old male was admitted to the hospital with a history of having developed acute diarrhea following ingestion of food served at an annual factory picnic. During the short period prior to admission, the patient had had fifteen diarrheal stools. Physical examination revealed an acutely ill man who appeared to be in mild shock.

Laboratory Examination—Examination revealed (1) plasma bicarbonate 16 mEq./L.; (2) plasma chloride 120 mEq./L.

Clinical Diagnosis—Acute food poisoning with fluid volume deficit and metabolic acidosis.

Treatment and Clinical Course—First Day: Parenteral fluid therapy was begun immediately and continued throughout most of the first twenty-four hours. During the latter half of the day, 1,200 ml. of the oral electrolyte-carbohydrate mixture was taken and retained.

Second Day: Clinically the patient was much better and the diarrhea was subsiding; 1,350 ml. of the oral electrolyte-carbohydrate mixture and 960 ml. of a powdered skim milk preparation was taken and retained.

Third Day: Clinically the patient was much improved. More complete oral nutriments were gradually introduced.

Case 4. A 31 year old male was admitted to the hospital because of abdominal pain which had localized in the right lower quadrant. Physical examination revealed pain to palpation and rebound tenderness at McBurney's point.

Laboratory Examination—Examination revealed (1) white blood count of 18,000 with marked shift to the left; (2) normal urinalysis.

Clinical Diagnosis—Acute appendicitis.

Treatment and Clinical Course—First Day: Abdominal laparotomy was performed and an acutely inflamed vermiform appendix was removed. Following operation 1,000 ml. of 5 per cent dextrose in Lactated Ringer's Solution was given intravenously. During a twenty-four hour period 1,500 ml. of the oral electrolyte-carbohydrate mixture in the form of cracked ice was taken and retained.

Second Day: Postoperative course was smooth and 1,975 ml. of the oral electrolyte-carbohydrate mixture and 500 ml. of water were taken and retained.

Third to Eighth Day: Full diet was gradually introduced and the patient was discharged on the eighth day.

Case 5. A 66 year old female was admitted to the hospital for elective cholecystectomy. Physical examination showed essentially normal findings except for moderate tenderness to deep palpation in the right upper quadrant.

Laboratory Examination—Blood and urine were essentially normal.

Clinical Diagnosis—Cholelithiasis.

Treatment and Clinical Course—First Day: A cholecystectomy was performed without difficulty. Following operation 1,000 ml. of 5 per cent dextrose in Lactated Ringer's Solution and 1,000 ml. of 5 per cent dextrose in water were administered intravenously and 1,300 ml. of the oral electrolyte-carbohydrate mixture in the form of cracked ice was taken and retained.

Second Day: The postoperative course was smooth; 2,200 ml. of the oral electrolyte-carbohydrate mixture and 800 ml. of water were taken and retained.

Third to Tenth Day: Full diet was gradually tolerated. Patient was discharged on the tenth day.

Case 6. A 28 year old female was admitted to the hospital for elective cesarean section. Pregnancy was at term. Previous x-ray pelvimetry had revealed marked cephalopelvic disproportion. Physical examination revealed the pregnant uterus and was otherwise normal.

Laboratory Examination—Blood and urine were essentially normal.

Clinical Diagnosis—Term pregnancy; cephalopelvic disproportion.

Treatment and Clinical Course—First Day: Cesarean section was performed without difficulty. Following the operation 1,000 ml. of 5 per cent dextrose in Lactated Ringer's Solution was administered intravenously; 1,820 ml. of the oral electrolyte-carbohydrate mixture in the form of cracked ice was taken and retained.

Second Day: The postoperative course was smooth; 1,650 ml. of the oral electrolyte-carbohydrate mixture and 800 ml. of water were taken and retained.

Third to Tenth Day: Full diet was gradually introduced and the patient was discharged on the tenth day.

DISCUSSION

In the past many different solutions have been employed for oral fluid therapy including plain water, fruit juices, tea, clear soups, homemade mixtures of water, table sugar, table salt with or without sodium bicarbonate; and hospital made mixtures of saline solution, glucose solution and orange juice. Few, if any, of these solutions provide balanced amounts of water and electrolytes and many contain ingredients whose electrolyte content is far from constant. Furthermore, mistakes in compounding such mixtures frequently have been responsible for the development of serious electrolyte disturbances in the extracellular fluid.[4]

The oral electrolyte-carbohydrate mixture employed in this study, in contrast to the various solutions described, has a constant electrolyte content, provides balanced amounts of water and electrolyte and contains carbohydrate in amounts sufficient to prevent severe caloric deficits. Furthermore, the mixture proved to be convenient for either home or hospital use, was well tolerated, easy to prepare and easy to administer.

The results of this study combined with the considerations outlined indicate that when properly used this oral electrolyte-carbohydrate mixture represents a valuable new tool in the therapeutic armamentarium of the physician in the general practice of medicine.

SUMMARY AND CONCLUSIONS

1. The purpose of the present study was to define the role that a new oral electrolyte-carbohydrate mixture might play in the treatment of patients with various types of fluid imbalances and to evaluate the usefulness of the mixture to the general practitioner of medicine.
2. The new oral electrolyte-carbohydrate mixture in the recommended dilution provides a solution whose electrolyte composition resembles that of the multiple electrolyte solutions designed for parenteral fluid therapy by Butler and Talbot.
3. A total of 267 patients including twenty-nine with medical disorders, 112 with surgical disorders, forty-five with obstetric and gynecologic disorders and eighty-one with pediatric disorders received the new oral electrolyte-carbohydrate mixture.
4. The mixture proved useful for the treatment of the following specific fluid imbalances: fluid volume deficit, extracellular fluid total electrolyte concentration excess, potassium deficit, metabolic acidosis and metabolic alkalosis. In addition the mixture proved useful as a means of forestalling fluid imbalance in patients with decreased tolerance for more complete oral nutriments, e.g., the postoperative patient.
5. The mixture proved to be convenient for hospital and home use, was well tolerated, easy to prepare and easy to administer.
6. The mixture is superior to other commonly used oral fluids because it has a constant electrolyte content, provides balanced amounts of water and electrolytes and contains sufficient carbohydrate to prevent severe caloric deficits.
7. The mixture does represent a valuable addition to the therapeutic armamentarium of the physician in general practice.

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BIBLIOGRAPHY

1. Darrow, D. C.; Pratt, E. L.; Flett, J., Jr.; Gamble, A. N., and Wiese, H. G.: Disturbances of Water and Electrolytes in Infantile Diarrhea, Pediat. **3**:129-156 (February) 1949.
2. Talbot, N. B.; Crawford, J. D., and Butler, A. M.: Homeostatic Limits to Safe Parenteral Fluid Therapy, New England J. Med. **248**:1100-1108 (June 25) 1953.
3. Talbot, N. B.; Kerrigan, G. A.; Crawford, J. D.; Cochran, W., and Terry, M.: Application of Homeostatic Principles to the Practice of Parenteral Fluid Therapy, New England J. Med. **252**:862-865 (May 19) 1955; Ibid., **252**:898-906 (May 26) 1955.
4. Finberg, L., and Harrison, H. E.: Hypernatremia in Infants, Pediat. **16**:1-14 (July) 1955.

The Use of Antibiotics

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ADVANCES IN the last two decades in the field of infectious diseases have been among the most remarkable in medicine. The advent of many chemotherapeutic and antibiotic agents, with improved laboratory procedures to aid in diagnosis, has led to the cure or control of most of the common bacterial infections. This, however, has the dangers of a two-edged sword. Many physicians apparently feel that infectious diseases no longer present any problem. This attitude has led to improper and indiscriminate use of antibiotics and neglect of diagnostic procedures. Each physician must be acquainted with the nature and range of action of antimicrobial agents, their effects on bacteria, toxic manifestations, the most effective way to use them alone or in combination and, last but not least, when and when not to use antibiotics.

Whenever possible a bacteriologic diagnosis may enable one to choose the proper drug and, if necessary, permit the performance of sensitivity tests later if the disease does not respond to treatment. Often, it is true, bacteriologic proof is not obtainable at the outset and makes knowledge of the action of the agents even more important.

It is interesting to note that many use penicillin for its wide range of activity when actually it is effective only against Gram-positive organisms. The difference between bacteriostatic and bactericidal agents is important but, in the last analysis, in spite of this, clinical experience must often be relied upon to dictate the proper method of treatment to be used initially.

The treatment of established infection with localized pus is surgical drainage. Many times antimicrobial agents will control or eradicate cellulitis even in the presence of pus so that it is obscured. Deep-seated infections (for example in the breast) which do not respond readily to antibiotics may be purulent and require incision and drainage. On the surgical ward during any postoperative period, the appearance of fever or its persistence without other obvious cause may indicate a collection of pus that is masked by antibiotics. Discontinuation of the antibiotic which may permit the signs of infection to return, is frequently more productive than increasing the dose, giving various combinations or starting with a new agent.

The emergence of penicillin-resistant staphylococci (micrococcus) both on surgical and medical wards has become an increasing problem. The resistance of this organism to penicillin and tetracycline occurs in those strains that produce penicillinase. The marked increase in erythromycin-resistant staphylococci seems directly related to the amount of the antibiotic used in a given hospital. It has been suggested by one author that this agent be used only in combined therapy. The behavior of the micrococcus is quite a contrast to those microorganisms that have shown no change in sensitivity, e.g., pneumococci, group A hemolytic streptococci, meningococci, gonococci, H. influenzae and proteus. The gonococcus in fact has again become sensitive to sulfadiazine since the use of this chemotherapeutic agent has been almost completely abandoned in favor of penicillin.

Likewise the appearance of Gram-negative bacteria on similar wards has led to the wide use of penicillin and streptomycin combinations. This is advantageous but unfortunately many organisms develop resistance in a relatively short period (five to seven days) particularly to streptomycin. It should be pointed out that only with streptomycin have originally sensitive strains become resistant with any degree of frequency. When the broad-spectrum agents or combinations are employed, superinfection may result due to proteus, pseudomonas, resistant staphylococci and fungi. The broad-spectrum antibiotics may be used but it should be borne in mind that the correlation between in vitro tests and in vivo results may not be reliable. Lower serum levels may result in cure when these levels do not inhibit growth in the test tube.

It is disturbing to note the increasing number of anaphylactic reactions, allergies of the serum-sickness type and deaths attributable to penicillin. The dangers of intramuscular injection of this agent are well recognized. The use of the deltoid rather than the gluteal muscle group allows the application of a tourniquet in the event of an immediate reaction when this drug is used. Epinephrine, a parenteral antihistamine preparation, soluble hydrocortisone and levophed should be available for immediate administration. These preparations may be given intravenously in glucose. A careful history from the patient of allergic reactions and possible drug sensitivities in the past may aid in eliminating some of the disasters. It is well recognized that patients with certain types of allergies, particularly asthma, react violently at times to penicillin injections. Proof that oral penicillin in adequate dosage is effective allows use of this route to escape some of the hazards of the parenteral route.

With the wide usage of antibiotics, toxicity becomes a prominent though statistically small fac-

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tor. None of the agents in use to date is free from dangers or disadvantages. Among the more serious reactions in addition to those mentioned are hepatic dysfunction (streptomycin, aureomycin, terramycin and chloromycetin), kidney damage (streptomycin, bacitracin, neomycin and polymyxin) and aplastic anemia, agranulocytosis and other blood dyscrasias. Gastrointestinal irritation may be severe with the use of tetracycline agents. Invasion by drug-resistant staphylococci may cause fatal infections if the drug is not stopped and erythromycin begun. Streptonivicin and cathomycin, are a new group of antibiotics, for use in staphlococcal infections resistant to others agents.

There are a few specific instances that should be recognized and brought to attention. Polymyxin B is nephrotoxic and neurotoxic but should be used in the presence of resistant pseudomonas infections in a dose of 2.5 mg. per kilogram in divided doses every eight hours (total dose of 2.5 mg. per kilogram in twenty-four hours).

The prophylaxis of rheumatic fever is another example of the remarkable progress in this area as the result of investigations, carried out to a great extent in military installations. Although many agents are effective in treating beta-hemolytic streptococcal infections of the Group A type, penicillin seems to be the agent of choice to eradicate the organism and prevent relapses with the serious consequences of rheumatic fever and glomerulonephritis. Sulfonamides often do not prevent recurrences and will not prevent rheumatic fever. For this reason, they should not be used for the treatment of streptococcal tonsillitis. In controlled populations, penicillin or sulfonamide prophylaxis will prevent streptococcal infection and rheumatic fever. However, in the general population, the cure of streptococcal infection is the only logical method of prevention. A single injection of benzathine penicillin G, 600,000 to 900,000 units, seems to be most satisfactory. In patients with known rheumatic histories a single injection of this agent each month is usually adequate for prophylaxis. The throat culture can be demonstrated to be negative repeatedly during this time.

In 1956 it is estimated that 2,000,000 pounds of antibiotics worth $260,000,000 will be manufactured. There is an increasing trend toward indiscriminate use of antibiotic combinations and this has failed to produce spectacular results and has led to sensitization and bacterial resistance. The occurrence of antagonism is debatable. It does occur under rigidly controlled in vitro or in vivo conditions. However, when conditions are changed it cannot be demonstrated. This then may have little or no consequence in the treatment of human infections in most instances. However, a case in point is that of pneumococcal meningitis in which it has been shown that, although large doses of penicillin alone are effective and aureomycin alone is probably satisfactory, the combination of the two agents produced poor results. In a series of patients, there were 79 per cent deaths with the combined treatment as compared to 30 per cent when penicillin alone was used.

The most striking example of synergism is in the therapy of subacute bacterial endocarditis due to the enterococcus. Both in vitro and in vivo penicillin alone has some effect, streptomycin has practically none and yet the combination of the two is the most effective therapy at this date.

Combined therapy is justified in acute infections in which resistance may develop rapidly or in chronic infections in which resistant cells eventually emerge. The best example of this type of disease is tuberculosis.

Cross resistance may develop in infections treated with various members of the broad-spectrum group. It is usually of no advantage to use more than one of the agents in this group at any particular time. These agents are largely bacteriostatic whereas penicillin, streptomycin, bacitracin and neomycin are bactericidal.

At present the relation of vitamins to resistance to specific infections in humans remains relatively uncertain. Deficiencies at times seem to increase resistance to viral infections and lower resistance to bacterial infections in the experimental animal. Experimental evidence has been obtained to suggest that administration of certain antibiotics may lead to deficiency of some vitamins essential to human nutrition. The mechanism is uncertain. The effect may be mediated through changes in the intestinal flora, blocking of certain phases of intracellular metabolism or via gastrointestinal upsets produced by the antibiotics.

Critical evaluation of the therapeutic benefits from administration of large doses of vitamins in infections has not been carried out. In several animal species, antibiotics have been shown to have a sparing action on certain vitamin requirements. This may also be true for some vitamin requirements in man according to a few studies. There is likewise evidence that vitamin deficiency may develop in man in other situations.

If antibiotics cause vitamin deficiency by competitive blocking of intracellular metabolism, vitamin exhibition could possibly lessen antibiotic activity. The value of antibiotic-vitamin combinations opposed to antibiotics alone has not been subjected to controlled tests. Until more is known, it is difficult to suggest which vitamin should be given with which antibiotic in a specific infection.

SUMMARY

Antibiotic and chemotherapeutic agents have assumed a major role in the everyday practice of clinical medicine. They are among the most useful, but at times most harmful, substances the physician prescribes. A great volume of clinical and laboratory research has been done and continues

Acute Pancreatitis

Following Subtotal Gastrectomy

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THE ONSET of acute pancreatitis following gastric resection is always of grave prognosis. Despite the energetic treatment that may be administered to these patients, the outcome in a severe postoperative hemorrhagic pancreatitis is seldom in doubt. The clinical picture is essentially the same as that of pancreatitis under any other situation, although it may be less evident because the symptoms are similar to those of the more common surgical complications which might arise in the postoperative period. The less severe forms of pancreatitis may be confused for some time with post-gastrectomy conditions such as adynamic ileus, persistent gastric hypotonia and other complications giving rise to presternal or epigastric discomfort and pain. Severe hemorrhagic necrotizing pancreatitis, on the other hand, gives rise to alarming symptoms which frequently are confused with some catastrophic operative complication such as peritonitis from a ruptured suture line, intestinal obstruction or bowel ischemia due to vascular thrombosis. Pancreatitis has even been mistaken for severe postoperative hemorrhage.

If the diagnosis of acute pancreatitis is missed, a patient may needlessly be re-explored at a time when the trauma of a second operation may turn the balance unfavorably. Since the mortality from acute hemorrhagic pancreatitis is high and the disease progresses rapidly to a fatal termination, one often has only a short period of time in which to establish the diagnosis. The onset of acute postoperative pancreatitis should be suspected under a number of circumstances: (a) persistence of severe pain in the upper abdomen, which may be expressed as a vice-like constriction in the midsection, resulting in shortness of breath; (b) an unexpected and otherwise unexplained fall in blood pressure, which incidentally may often be the best yardstick of the severity of the process; (c) persistent inexplicable tachycardia which may or may not be associated with fever; (d) in the less severe forms of the disease, persistent epigastric fulness, anorexia, occasional vomiting, low grade fever and leukocytosis; (e) finally, failure of normal wound healing, perhaps with dehiscence, may reveal an underlying pancreatitis.

The diagnosis usually may be established by blood or urinary diastase determinations. In spite of the fact that falsely elevated readings may sometimes be obtained in the absence of pancreatitis, and normal or low values occasionally found in patients with a severe affection, the test in general remains an accurate one for acute pancreatitis. Failure to diagnose this postoperative complication is not from failure of the test, but rather from failure to consider the disease and obtain a serum diastase determination when indicated.

INCIDENCE

The frequency and importance of postoperative pancreatitis is not as yet fully appreciated for it is only within the last few years that reports have appeared in the literature in any number. Millbourne in 1949 reported that 9 per cent of 147 patients had an elevated serum diastase following gastrectomy, although only 4.8 per cent had associated clinical symptoms. Mahoffey and Howard stated that 15 per cent of gastrectomy patients developed a 100 per cent or more increase in diastase level postoperatively.

In the patients reviewed while preparing this paper, of 176 cases who were subjected to gastrectomy four patients developed acute pancreatic disease postoperatively, the complication being fatal in two cases. This is an incidence of 2.3 per cent with a 50 per cent mortality. The exact percentage of patients with elevated diastase levels could not be determined in this group as such determinations were not routinely performed on all cases.

ETIOLOGY

The etiology of postoperative pancreatitis, as in the case of any other pancreatitis, remains obscure. The disease is unpredictable and, despite

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Use of Antibiotics *(Continued)*

to be done throughout the medical world. The amount of literature on the subject is enormous but many times encouraging results are unsupported by controlled experiments. A few of the more common problems and toxic reactions have been reviewed and discussed.

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BIBLIOGRAPHY

1. Goldsmith, Grace A.: New England J. Med. **254**:165, 1956.
2. Klein, M., and Schorr, S. E.: J. Bact. **65**:454, 1953.
3. Hunter, T. H.: Bull. N. Y. Acad. Med. **28**:213, 1952.
4. Jawetz, E., and Gunnison, J. H.: Antibiotics & Chemotherapy **2**:243, 1952.
5. Finland, M.: New Eng. J. Med. **252**:570, 1955.
6. Finland, M.: New Eng. J. Med. **253**:1019, 1955.
7. Kneeland, Y., Jr.: Bull. N. Y. Acad. Med. **31**:639, 1955.
8. Barr, D. P.: J.A.M.A. **159**:1454 (December), 1955.

the many possible factors, there remains a group of cases in which no etiologic agent can be demonstarted. It has occurred after gastrectomies when the anatomic relationships were normal, the technical requirements routine and no pancreatic trauma noted. The condition also has followed simple gastro-enterostomy.

It is probable that the disease results when activated pancreatic secretion is excreted into the interstices of the pancreas, this being brought about in a variety of ways. Millbourne has enumerated well what he considers the five main etiologic factors. First, he considers mechanical trauma to the pancreas by pressure, traction or laceration as of importance as an etiologic factor, and stresses that gentle handling of the pancreas must be practiced at all times. However, it is interesting to note in this regard the work of Thistlethwaite and Hill which showed that actual mechanical damage to the pancreas, without duct injury, does not elevate the serum amylase in experimental dogs.

Secondly, interference with the blood supply to the pancreas may be important although, in view of the extensive collateral vascular supply of this organ in the majority of individuals, this factor is of doubtful significance. As Warren has pointed out, the gastroduodenal artery frequently may be ligated during gastrectomy for acute hemorrhage without untoward result.

Duodenal ileus, associated with proximal jejunal loop stasis and consequent stagnation of duodenal contents, is a third factor, with the possibility of reflux of duodenal fluid into the pancreatic ducts.

Fourthly, spasm of the sphincter of Oddi is considered because in those patients having a common channel for the common bile and pancreatic ducts, this could initiate an acute pancreatitis.

Finally, Millbourne describes injury to the pancreatic ducts as an important etiologic factor, especially with reference to the more superficially placed accessory pancreatic duct entering the duodenum as it does at a point above the ampulla of Vater. In some cases, this duct may be the main pancreatic channel and, if it is dissociated from the duct of Wirsung, it becomes obvious that laceration or ligation of this superficially placed duct could have dire consequences. Thistlethwaite and Hill have demonstrated the severity of pancreatitis following either ligation of, or injection of bile into, the pancreatic duct. Warren has emphasized that if a duct of important functional size is injured, considerable escape of pancreatic fluid may occur leading to a profound pancreatitis. Many cases of postoperative pancreatitis may be due to a combination of two or more factors. This is suggested by one of our cases in which there was upper intestinal obstruction postoperatively, with pancreatic trauma of uncertain degree during the gastric resection.

The proximity of the accessory pancreatic duct and its ampulla, when present, to the pylorus and first portion of the duodenum would therefore appear to be worthy of serious consideration during the performance of gastrectomy. It was with this in mind that twenty-five autopsy specimens were dissected with care to determine the actual distance of the accessory pancreatic duct from both the pylorus and the ampulla of Vater. Even in those specimens in which no duodenal entrance could be found for the accessory duct, its termination was always in close relation to the anteromedial surface of the duodenum. In such a position, of course, it remains as liable to injury as when there is an accessory duodenal ampulla.

During these dissections it was found that the average distance of the accessory ampulla or the termination of the accessory pancreatic duct from the pylorus was 6.7 cm. This distance varied from 9.0 cm. to 5.0 cm. in the various specimens dissected. In 4 per cent the accessory duct formed the main outlet for pancreatic secretions and in one the duct of Wirsung was small and did not enter the duodenum. In 36 per cent only the accessory duct did not appear to enter the duodenum. The distance of the accessory ampulla, when present, above the ampulla of Vater varied from 3.5 cm. to 1.0 cm., the average being 2.0 cm. In all cases the duct of Santorini was superficially placed within the pancreatic parenchyma.

REPORT OF CASES

Case 1. I. C. F. This patient, aged 58, was readmitted to the hospital on August 24, 1952, with a twenty year history of duodenal ulcer. For one week prior to his present admission he had considerable right upper quadrant pain associated with marked vomiting. He had a slight urinary infection. The pain increased during this period in the hospital, it being located mainly in the right side of the abdomen. This was associated with some tenderness and muscle guarding in the right lower quadrant and elevation of the white blood count. These features of the case gradually subsided. About twelve days after admission he suddenly felt weak and passed several liquid tarry stools. This melena persisted and became accompanied by vomiting of moderate amounts of blood on several occasions. He did not improve on conservative management and on his fourteenth hospital day it was decided to operate.

At operation, a large posterior duodenal ulcer was found in the first portion of the duodenum, penetrating into the head of the pancreas. Protruding into the ulcer bed was a match-stick sized vessel which was not actively bleeding at the time of surgery. The duodenum was transected at the ulcer site to avoid further trauma to the pancreas, the healthy anterior duodenal wall being sutured down to the posterior ulcer bed. The vessel in the base of the ulcer was ligated with a transfixion suture. A firm closure was thought to have been obtained and was reinforced with omentum. This procedure was felt to be safer than dissecting out the deeply penetrating ulcer. Subtotal gastric resection was performed and gastrointestinal continuity restored by a retrocolic Polya type of anastomosis. The abdomen was closed without drainage.

On the first postoperative day, he developed marked epigastric pain which persisted and was associated with a tachycardia of 130 per minute. By the second day, the pain was severe, the pulse rate 140 per minute, temperature 106 F., and the serum diastase elevated to 1065 units. He was treated with continuous gastric suction, penicillin, streptomycin, calcium gluconate, adrenal cortical extract, Levophed, intravenous fluids and oxygen. By the fourth postoperative day, diastase had dropped to 250 units, but the blood calcium was 6.4 mg. per cent. Despite strenuous supportive measures his condition deteriorated and he expired early on the fifth postoperative day.

Autopsy revealed focal necrosis of the head of the pancreas, peritoneal fat necrosis, including marked necrosis of the omentum around the duodenal stump, ascites of brownish thin fluid and a small perforation of the duodenal stump. It was felt that the duodenal perforation occurred secondarily to the pancreatic disease; however, no certainty can be entertained on this point. There was also bilateral pleural effusion of 200 cc. on each side. The gastro-jejunostomy anastomosis was intact.

Case 2. L. D. This patient, aged 34, was admitted on January 29, 1953, with a two year history of duodenal ulcer, confirmed by x-ray one year previously. On the latter admission, x-ray studies revealed partial pyloric obstruction which was relieved by medical treatment. However, in view of the patient's age and frequent loss of time from work, it was felt that gastric resection should be considered.

On February 10, 1953, a subtotal gastric resection was performed. The stomach was found to be considerably enlarged, thick walled and showed marked puckering of the pylorus with scar tissue extending into the duodenum for a distance of one inch. After mobilization of the lower end of the stomach, a posterior duodenal ulcer became apparent, penetrating into the pancreas. Dissection of the duodenum was carried out with considerable difficulty and dissection was well into the second portion when normal duodenum was reached. A good duodenal closure was obtained and a retrocolic Hoffmeister type of anastomosis performed, following subtotal resection of the stomach. A drain was placed down to the area of pancreaticoduodenal dissection and brought out through a stab wound in the right flank.

On the first postoperative day, he developed marked tachycardia (160 per minute) but the temperature was only 102 F. There was no excessive abdominal pain; he had some nausea despite continuous gastric suction. The tachycardia slowly subsided to 90 per minute over the ensuing five days, and the temperature reached only 103 F. but did not return to normal until the ninth postoperative day. There was no evidence of pulmonary, wound, urinary or other complications. Serum diastase on the fourth postoperative day was 640 units and fell to 320 by the sixth day. He was treated with continuous gastric suction, penicillin, streptomycin and intravenous fluids as usual. Intestinal ileus persisted for three days, after which gastric suction was discontinued. Temperature and pulse gradually returned to normal, and he was discharged on his twenty-second postoperative day. To date, he has remained well.

Case 3. A. F. O. This man, aged 56, was admitted on December 27, 1954, with a twenty-three year history of duodenal ulcer. He had been hospitalized on several occasions for acute exacerbation of ulcer activity as evidenced by pain and melena. On this occasion, he was admitted because of moderate melena and abdominal cramps. Under medical regimen he improved considerably but, because of his long history and the occurrence of bleeding, he requested surgery.

On January 20, 1955, a subtotal gastrectomy was performed. There were numerous adhesions from previous large bowel surgery performed in 1951 and, after dissection of these, marked constriction of the first part of the duodenum with an ulcer crater was revealed. The duodenum was dissected from the pancreas above and below the ulcer. As the ulcer penetrated deeply into the pancreas, as much of the duodenum was removed as possible, the remaining mucosa around the ulcer bed being trimmed away. A posterior gastrojejunostomy of the Hoffmeister type was performed following gastric resection. The ulcer site was left open and a drain was brought out through a stab wound in the right flank.

Early on the first postoperative day the patient suddenly went into shock. There was no apparent blood pressure, weak pulse and a cold clammy skin. He responded to Dextran and blood transfusions and thereafter complained of sharp, stabbing epigastric pains. Serum diastase was elevated to 1,600 units, there was tachycardia of 160 per minute and a fever of 104.5 F. He was treated with continuous gastric suction, penicillin, streptomycin, whole blood, intravenous fluids and oxygen therapy. On the second day, he repeatedly went into shock, and his temperature rose to 106 F. Treatment was continued with the addition of Levophed in an attempt to stabilize his blood pressure. Later during the day he developed signs of a right pleural effusion and thoracentesis produced 540 cc. of dark brown fluid. The patient was digitalized because of cardiac arrhythmia and myocardial strain, as confirmed by electrocardiogram. Quinidine was given later in addition, and this appeared to control the arrhythmia. His urinary output was small and concentrated. Supportive therapy was continued but his condition remained unchanged and he eventually expired on his fourth postoperative day.

On the third day his serum diastase had decreased to 400 units, but his blood sugar was elevated to 308 mg. per cent. Permission for autopsy unfortunately was not granted in this case.

Case 4. C. M. B. This patient, aged 58, was readmitted to the Missouri Pacific Employes' Hospital on November 4, 1955, with a history of epigastric discomfort for several years. In October 1954, a gastrointestinal series revealed duodenal deformity due to ulcer. His last previous admission to the hospital was in January 1955, at which time he had pyloric obstruction, which improved with conservative treatment.

On this present admission, he stated he had been having almost continuous epigastric pain for the previous three weeks, associated with frequent vomiting. Investigation confirmed the presence of pyloric stenosis with duodenal ulcer. This did not improve greatly on medical management and it was considered advisable to undertake gastric surgery.

On November 19, 1955, a subtotal gastric resection was carried out. The first portion of the duodenum was surrounded by adhesions and a posterior duodenal ulcer was penetrating the pancreas. The duodenum distal to the ulcer was dissected free and firm closure obtained following transection. The adherent area of duodenum was dissected free of the pancreas, pancreatic tissue being incised during this procedure. A three quarter resection was performed and the continuity of the gastrointestinal tract restored by a retrocolic Hoffmeister type of gastrojejunostomy. The abdomen was closed in layers without drainage.

His postoperative course appeared uneventful until the third day, at which time he had fair bowel sounds and the gastric suction was discontinued. A serum diastase on the second postoperative day showed 400 units, dropping to 183 the following day. He did not tolerate discontinuance of gastric suction, despite repeated attempts. Pulse rate remained rapid, around 100 to 110 per minute, and temperature ranged from 98.6 to 102 F. rectally. On his eighth day, following another attempt at feeding, he became distended and vomited. Gastric lavage revealed 950 cc. fluid. X-rays showed a large dilated loop of small intestine in the left upper quadrant, and a tentative diagnosis of closed-loop obstruction was made. On reexploration the same day a loop of jejunum was found to be obstructed in the left gutter by an adhesion, which was released. In addition, the peritoneal cavity contained about 500 cc. of gelatinous material and the mesentery presented an edematous, reddened appearance with many areas of fat necrosis. The pancreas also was edematous and showed areas of fat necrosis. The duodenal stump and gastrojejunostomy site were intact. Three drains were placed in the lesser sac and three around the duodenal stump, being brought out through appropriate stab wounds. Two drains were left in the operative wound.

He was treated postoperatively with antibiotics, calcium gluconate, intravenous fluids and continuous gastric suction. He ran a remittent fever for many days but was able to resume oral feedings within two days. He developed cutaneous fistulae connected with the stab drainage wounds in the flanks, which gradually healed with irrigations. He was sufficiently well to be discharged on January 5, 1956, forty-seven days following gastric resection and thirty-eight days after the second exploration. Serum diastase at that time was 78 units.

He returned in February 1956 for drainage of a residual subcutaneous abdominal abscess. Following this, his progress was satisfactory and he has remained well to date.

DISCUSSION

Since the exact etiology of acute pancreatitis following gastric surgery is uncertain, it becomes difficult to name precise measures that may be taken to prevent this grave complication. From the clinical and experimental evidence available, it would appear that a most severe pancreatitis may ensue after pancreatic duct injury. Consequently, care must be exercised to avoid such injury, which is especially prone to occur during mobilization of a low lying penetrating ulcer. The relationship of the common bile duct to the ulcer should be ascertained and, if closure is to be performed well into the second portion, it has been recommended that the long limb of a T-tube be passed into the duodenum. This obviates the possibility of closing the ampulla of Vater during the closure of the duodenal stump, but it must be remembered that it will also obstruct the outflow from the pancreatic duct in those cases which have a common channel of entry for the common bile and pancreatic ducts.

Warren has emphasized that the duct of Santorini is more superficial, entering the duodenum at a point above the major duodenal papilla; it thus becomes more vulnerable to injury. He stresses the importance of the final mobilization of the duodenum in low lying ulcers, as this duct may be looked for in the groove between the duodenum and the pancreas. If the duct is transected, he states, its association with the other pancreatic duct should be determined. This may be done by injecting methylene blue into the severed duct and observing its passage into the duodenum. If no such passage occurs, it must be presumed that the ducts are not in continuity and the severed duct should be re-implanted into the upper intestinal tract. If continuity is demonstrated, the injured duct may safely be ligated, as its tributaries will drain into the other duct. In reviewing our autopsy specimens, the former situation would be the case only when the accessory duct is the main pancreatic channel.

With a deeply penetrating ulcer, it is advisable not to attempt dissection of the ulcer bed as this leaves exposed pancreatic parenchyma. A common method of dealing with these ulcers has been to cut through the duodenal wall peripherally, trimming away any mucosa from the bed and thereafter draining the area. It is interesting to note that in each of the cases presented here, there was a posterior penetrating duodenal ulcer requiring considerable dissection at the pancreatico-duodenal junction. In the last three cases, the second portion of duodenum was reached before satisfactory closure could be obtained.

From dissection of autopsy material, it is evident that minor laceration and even complete transection of the accessory pancreatic duct could easily pass unobserved in the course of duodenal mobilization. The duct in many cases is extremely small and, with the associated distortion of the area by fibrosis, and by traction during mobilization, this complication may occur more frequently than is appreciated. It would appear that with low lying duodenal ulcers and difficult dissection a secure closure obtained above the ulcer would reduce the risk of injury to the accessory duct.

It may be that in such cases transection proximal to the pylorus, if necessary, with coning out of antral mucosa is a safer procedure than arduous dissection of the duodenum around and below the penetrating ulcer with its concomitant dangers of direct pancreatic trauma or laceration of the accessory duct, and even the common bile duct.

The treatment of acute pancreatic disease occurring postoperatively is essentially the same as that for the primary case of pancreatitis. Symptomatic treatment is required for the care of shock, pain, infection, pleural effusion. The mainstays of treat-

Case Reports

Psittacosis in Missouri

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Until 1952 psittacosis was considered a relatively rare illness in the United States. The average number of cases reported in the five years preceding 1952 was about thirty per year for the entire United States. This figure rose rapidly in 1952 to 135 and since then has continued to rise sharply. This upswing in the incidence of psittacosis has occurred concurrently with modifications in the regulations affecting interstate trade of psittacine birds and a relaxation in the regulations affecting those imported. These modifications of previously stringent regulations seemed indicated in the face of the sparse incidence of psittacosis in the preceding years and the high cost of enforcing the regulations as well as the discovery that a wide variety of non-psittacine birds may cause the disease. In the last several years there has been a great upsurge in the popularity of parakeets and related birds as house pets so that now they are commonly stocked in department and variety stores as well as in pet shops. In the case to be reported the patient was a clerk in a chain store.

CASE REPORT

The patient, a 55 year old unmarried white female, entered the University Hospital with chief complaints of cough and lassitude of ten days duration and pleuritic chest pain of about two days duration. The patient apparently was in her usual state of health until ten days before admission when she developed a nonproductive cough and felt unduly tired. Four days before admission the patient noted reddish purple spots over the inner and posterior aspects of her legs; two days before admission she noted a tight feeling under her left breast which rapidly became more severe. This pain, she described as a "tearing" sensation brought on or aggravated by deep breathing or cough. During the present illness the patient felt chilly

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Acute Pancreatitis *(Continued)*

ment are antibiotics, continuous gastric suction, oxygen therapy, intravenous fluids, electrolytes and whole blood, calcium, Meperidine for pain, and, in some cases, paravertebral procaine block or epidural anesthesia. If an acute diabetic condition occurs, it will require the judicious use of insulin. Surgical procedures are generally of no help and in fact are often detrimental. The development of abscess formation will require drainage. In view of recent work on adrenal cortical exhaustion during and after major surgery, intravenous hydro-cortisone may well be of benefit.

Detailed treatment of acute pancreatitis has been amply discussed in many publications and it therefore is not elaborated upon here. It is a common experience in severe and hemorrhagic postoperative pancreatitis that treatment is of little avail, despite its enthusiastic application, and improvement must be sought in methods of prevention rather than of therapy.

SUMMARY

1. The clinical picture, diagnosis, incidence and suspected etiologic factors of acute pancreatitis following gastric surgery are reviewed.

2. The proximity of the accessory pancreatic duct to the pylorus is emphasized by description of autopsy material.

3. A report is given of four cases of pancreatitis following gastric resection for duodenal ulcer, and preventive measures are discussed. It is suggested that with low lying ulcers, proximal closure of the duodenum is a safer procedure than difficult duodenal dissection.

4. The incidence of recognizable pancreatitis following subtotal gastrectomy in this series as 2.3 per cent, with a 50 per cent mortality. Even the most energetic treatment is of little avail in a severe postoperative pancreatitis, and it is only in improved methods of prevention that hope may be entertained.

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BIBLIOGRAPHY

1. Dunphy, J. E., et al.: Acute Postoperative Pancreatitis, New England J. Med. **248**:445, 1953.
2. Kleitsch, W. P.: Anatomy of the Pancreas, Arch. Surg. **71**:6 (December) 1955.
3. Mahoffey, J. H., and Howard, J. M.: The Incidence of Postoperative Pancreatitis, Arch. Surg. **70**:348 (March) 1955.
4. Marshall, S. F.: Partial Gastric Resection for Peptic Ulcer, Surg. Clin. N. America **29**:767-777, 1949.
5. Millbourne, E.: On Acute Pancreatic Affections Following Gastric Resection for Ulcer or Cancer, and the Possibilities of Avoiding Them, Acta. Chir. Scandinav. **98**:1-21, 1949.
6. Perman, E.: Surgical Treatment of Gastric and Duodenal Ulcer, Acta. Chir. Scandinav. **77**:1-333, 1935.
7. Perryman, R. E., and Hoerr, S. O.: Observations on Postoperative Pancreatitis and Postoperative Elevation of Serum Amylase, Am. J. Surg. **88**:417 (September) 1954.
8. Thistlethwaite, J. R., and Hill, R. P.: Serum Amylase Levels in Experimental Pancreatitis, Surgery **31**:495-501, 1952.
9. Warren, K. W.: Acute Pancreatitis and Pancreatic Injuries Following Subtotal Gastrectomy, Surgery **29**:643-657, 1951.
10. Warren, K. W.: Pancreatic Considerations in Gastric Surgery, J.A.M.A. **154**:803-810, 1954.

but did not have a frank shaking chill. The patient was seen by her local physician two days before admission and he referred her to University Hospital. A temperature of 103 F. was noted at that time. The patient received no chemotherapeutic agents during the present illness.

Past history and family history were essentially noncontributory to the present illness. The patient lives alone and works as a clerk in a variety store in her community.

Physical examination at the time of admission revealed the following: Temperature 103.4 F. (rectally), pulse 138, blood pressure 100/50. The patient was a frail, elderly, white female who appeared to be chronically ill. The skin was hot and dry. There were large erythematous splotches with discrete margins over the lower extremities. Several small nodes were noted in each inguinal area. There was dullness to percussion, decreased breath sounds and decreased tactile fremitus over the right base. Medium inspiratory rales were heard superior to this area of dullness. Over the left chest no dullness was noted but there was slight increase in tactile fremitus and in the breath sounds over the left base. Examination of the heart was normal. A uterine mass was found on pelvic examination (subsequently removed and diagnosed pathologically as a myoma). The remainder of the physical examination was normal.

Laboratory findings on admission included the following: Hemoglobin 11.5 grams per cent, hematocrit 35 pcv, white cell count 7,200, differential 88 per cent polymorphonuclear cells, 2 per cent metamyelocytes, 9 per cent lymphocytes and 1 per cent eosinophils. Urinanalysis, normal with the exception of 10 milligrams per cent of albumin. Serum VDRL, nonreactive. Sputum culture, normal flora. Cultures of the blood, no growth.

Clinical course: A posterior-anterior film of the chest revealed infiltrations in both the right lower lobe and left lower lobe. In view of the x-ray and clinical findings, psittacosis was suspected. The patient was questioned carefully regarding her contacts with psittacine birds. She stated that in the store where she was employed parakeets were regularly kept and sold. Apparently a new group of birds had arrived about one month before the patient's admission. Two weeks before admission, the patient noted that one of the birds seemed "droopy." This bird died a week later. Four days later, two other birds died. The patient's only contact with these birds was in passing by their cage.

About eighteen hours after admission, the patient was started on oxytetracycline, 0.5 grams every six hours. Her temperature remained elevated for the next forty-eight hours and thereafter the patient became afebrile and remained so throughout her hospitalization. The oxytetracycline was discontinued on the sixth hospital day and the patient was discharged three days later.

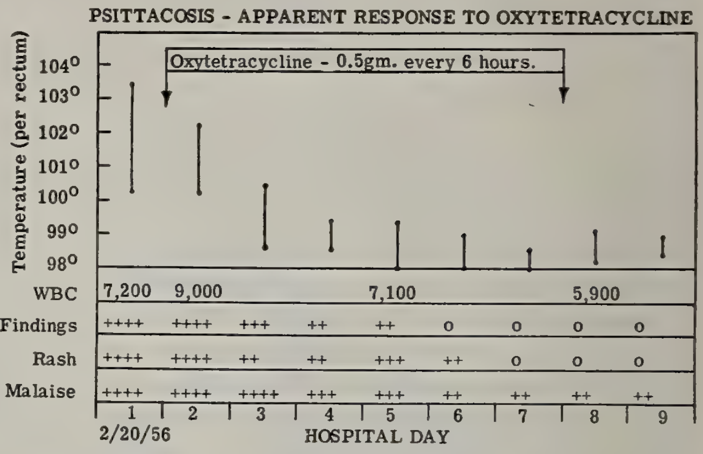

Fig. 1. Patient's clinical course in hospital.

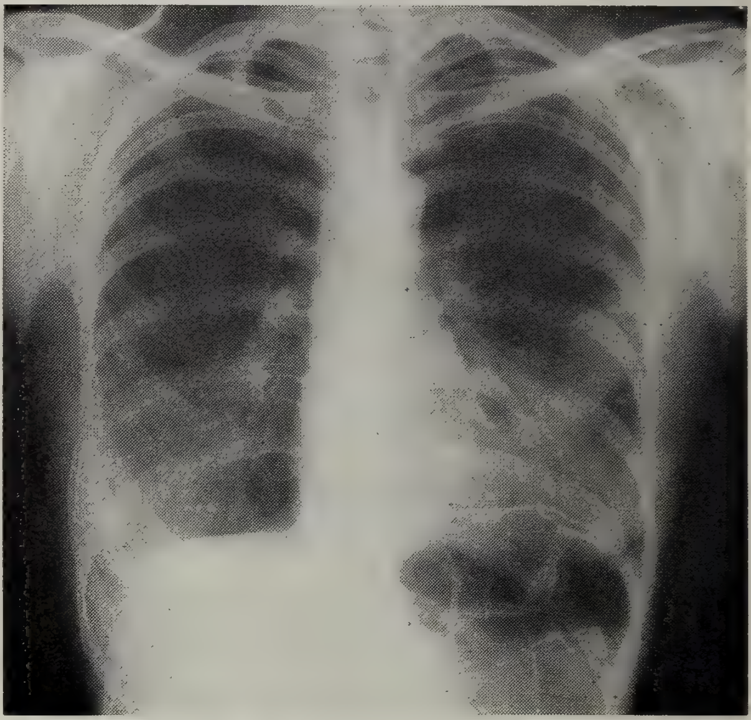

Fig. 2. Posterior-anterior chest film of patient at time of admission. Note areas of infiltration in right lower lung field.

The patient's clinical course in the hospital, depicted graphically in figure 1, was characterized by a defervescence of her fever within seventy-two hours and a more gradual disappearance of her pulmonary findings and the erythematous rash. Malaise was the most persistent symptom. The patient still felt unusually fatigued when seen in a follow-up visit ten days after discharge or about one month after the onset of her illness. Serial posterior-anterior x-ray films of the patient's chest are reproduced in figures 2, 3 and 4. The infiltrations noted in both lower lobes at the time of admission had not completely cleared nine days later. Acute and convalescent phase sera were submitted to the Missouri State Health Department and, in turn, were sent to the Communicable Disease Center of the U. S. Public Health Service in Montgomery, Alabama. Complement fixation tests, using psittacosis and lymphogranuloma venereum antigens, were performed. The titers obtained are noted in table 1. The convalescent sera showed at

TABLE 1

RESULTS OF COMPLEMENT FIXATION TESTS

Antigen	*Serum 1 Feb. 2, 1956*	*Serum 2 Mar. 10*	*Serum 3 April 4*	*Serum 4 July 2*
Psittacosis	1:32	1:128+	1:128+	1:256+
Lymphogranuloma venereum	1:8	1:128	1:32	1:64

Performed at the Communicable Disease Center, U.S.P.H.S., Montgomery, Alabama.

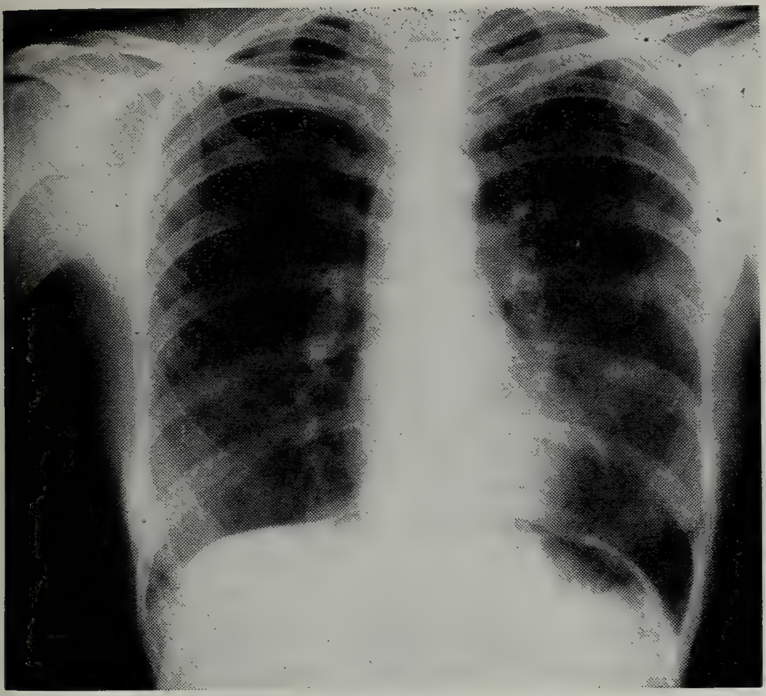

Fig. 3. Posterior-anterior chest film of patient nine days after admission. Areas of infiltration have partially resolved.

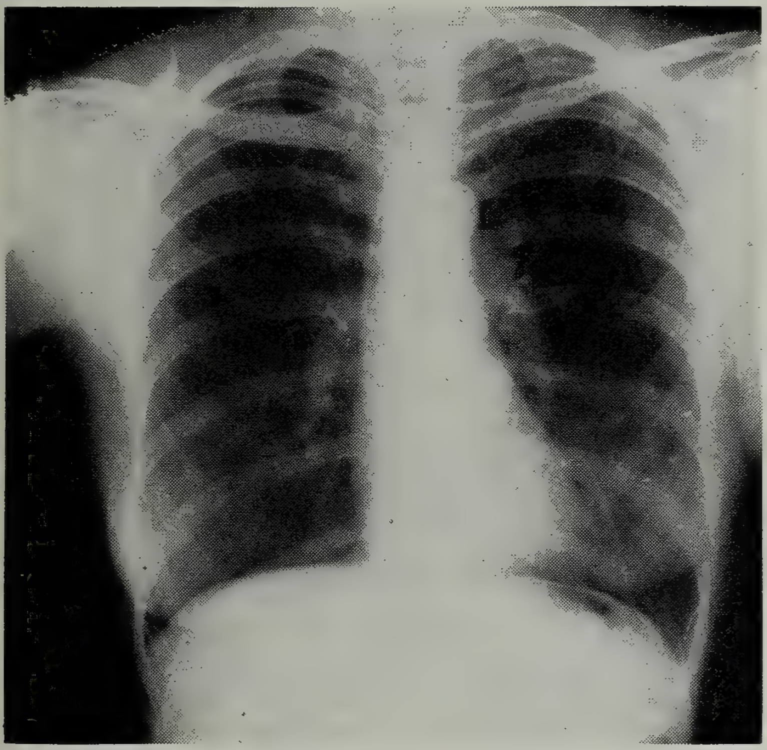

Fig. 4. Posterior-anterior chest film of patient five months after admission to hospital, showing infiltration resolved.

least a threefold increase in the titer of psittacosis antibody. Serial dilution was not carried beyond 1:128 or 1:256 in these sera.

This case was investigated by Dr. E. R. Price of the Division of Health of Missouri. In interviewing the patient, Dr. Price found that the store where the patient was employed received shipments of birds frequently. The shipment just before the onset of her illness was the only one which the patient could remember in which the birds had died. At least three and possibly four birds died following delivery. She was unable to tell the investigator where these birds were purchased, but she did know that they were shipped in from some distance, probably from one of the larger distributors of parakeets. The patient informed the investigator that at least one other person and possibly two became ill at the same time she did, and with similar complaints.

DISCUSSION

Psittacosis varies widely in its severity and in the character of its manifestations. In epidemics occurring before the advent of the antibiotics, a mortality rate of 20 per cent has been reported.[1] Of 278 cases reported in the United States in 1955, three were fatal; in a fourth patient, pulmonary embolus was listed as the primary cause of death.[2]

The onset of symptoms may be abrupt or gradual. Lassitude, fever, shaking chills, chilliness, pleuritic chest pain, dry cough, myalgia and anorexia may be prominent and persistent or mild and transitory. Clouding of the sensorium leading to an initial impression of encephalitis is not uncommon.[3, 4] Inquiry into possible contact with birds is usually not made until the diagnosis is suspected on other grounds. While parakeets and other members of the psittacine family are the most frequently named contacts, many other birds have been implicated. An official breakdown of the 1955 United States case reports lists contacts with the following birds: owl, canary, chicken, pigeons, wild birds and turkeys. Only three cases were attributed to the latter bird.[2] It is of interest to note that in a three week period in 1954, 143 cases were reported from Texas, the great majority representing cases from an epidemic occurring in turkey processors.[3] The vocation or avocation leading to bird contact among patients reported in the 1955 unofficial breakdown include the following: pet dealer, bird breeder, owner of pet, sales clerk and poultry processor. A few patients had incidental contacts and in a great many instances the contact was unknown.[2] Seibert et al.[5] found serologic evidence of psittacosis in seventeen (71 per cent) of twenty-four Railway Express messengers exposed to parakeets; thirty-nine other Railway Express workers (including loaders and office workers), with far less exposure to shipments of parakeets, were tested and had an incidence of 13 per cent.

Probably the most consistently noted physical findings, other than fever, are in the pulmonary area. Patches of moist inspiratory rales without other abnormalities are frequently found. However, dullness, decreased breath sounds or signs of consolidation may be present. Abnormalities in the neurologic examination including meningismus and disorientation are not uncommon. The spleen has been reported to be palpable. Fitz, Meiklejohn and Baum noted a soft spleen, felt 2 to 4 centimeters from the costal edge in four of nine patients. An erythematous skin eruption, similar to the one occurring in the case reported here, was noted in one patient.[4]

Radiographic examination of the chest frequently demonstrates one or more areas of pneumonitis. The degree of infiltration is variable, however, and may be so extensive as to suggest lobar pneumonia. The white blood cell count is usually normal or slightly elevated, and presents a normal differential. Cold agglutinins are usually not demonstrable.[6]

The only laboratory procedure of help in making a definitive diagnosis of psittacosis other than the direct isolation of the virus is the demonstration of a rising complement-fixing antibody titer. To do this one must obtain an acute phase serum sample as early as possible, preferably not later than two weeks after the onset of the illness. After three weeks one may expect an elevated titer; the titer generally remains elevated for months or years after convalescence. There is evidence to suggest that early antibiotic treatment may tend to delay a rising antibody titer.[6] A single serum specimen drawn in the convalescent phase and demonstrating an elevated titer is not conclusive since it may represent a response to an infection occurring in the past and not related to the present illness. However, with collaborative clinical evidence of recent or active infection, a titer of 1:16 is highly suggestive of psittacosis.

Several antibiotics have been used with efficacy in the treatment of psittacosis. The tetracycline agents appear to be the drugs of choice, although large doses of penicillin may be effective.[4, 7]

Although psittacosis has not been reported frequently in Missouri, it is felt that it occurs far more commonly than the reported incidence would indicate.[2] Many cases are so mild as to cause little concern to patient or doctor. More serious cases may often be diagnosed as "atypical virus pneumonia." In a Danish study in which a series of hospitalized cases with the diagnosis of atypical pneumonia were tested, from 5 to 10 per cent were serologically positive for psittacosis.[8] The number of reported cases of atypical virus pneumonia and psittacosis in Missouri from 1951 are as follows:[2]

	Atypical Virus Pneumonia	*Psittacosis*
1951	36	0
1952	49	0
1953	141	5
1954	11	5
1955	16	2

Methods of controlling the disease revolve around legislation to control importation and interstate shipping of not only psittacine birds but poultry as well. One bill (H.R. 8599) introduced into Congress proposed to "amend the Federal Food, Drug and Cosmetic Act so as to prohibit the movement in interstate or foreign commerce, of unsound, unhealthy, diseased, unwholesome or adulterated poultry products." The bill calls for an inspection system and creates a separate division of the FDA to administer the law. The poultry industry apparently has no objections to such measures provided the costs incurred are paid for with government funds. This law apparently would have no application to birds used as pets. Efforts have been made to control psittacosis in the latter by the use of antibiotic-treated seed, or by adding an antibiotic to the bird's drinking water.[9] In general, these measures have failed to eradicate the infection. Recently acquired birds constitute the greatest hazard to the pet owner, particularly if the bird has been taken off an antibiotic before leaving the aviary. Infrequently, infections occur in households in which the suspected bird has been present for a considerable period of months.[10]

Perhaps the most practical approach to the problem of psittacosis for the present is, as suggested by Meiklejohn,[4] to learn to live with it. Those who handle or have contact with birds of almost any type should be made aware that especially an ailing bird but even a well-appearing one may cause illness. Physicians should suspect the diagnosis in a patient presenting fever with upper respiratory or pulmonary findings. Prompt treatment with adequate doses of one of the tetracycline antibiotics will reduce morbidity.[11] Attempts to actively immunize human subjects with phenol-killed virus have been made, and an antibody response noted. Immunization has not been applied to individuals whose occupations make them susceptible to psittacosis.

SUMMARY

A case of psittacosis occurring in a 55 year old chain store clerk is reported. The clinical and laboratory features of psittacosis are discussed.

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BIBLIOGRAPHY

1. Meyer, K. F.: The Ecology of Psittacosis and Ornithosis, Medicine **21**:175-206, 1942.
2. Price, E. R.: Personal communication.
3. Seibert, Richard H.; Jordan, William S., and Dingle, John H.: Clinical Variations in the Diagnosis of Psittacosis, The New England J. Med. **254**:925-930 (May 17) 1956.
4. Fitz, Reginald H.; Meiklejohn, Gordon, and Baum, Martin D.: Psittacosis in Colorado, Am. J. M. Sc. **229**:252-261 (March) 1955.
5. Seibert, Richard H.; Williams, Robert F.; Jordan, William S., Jr.; Ginsberg, Harold S., and Dingle, John H.: Epidemiology of Psittacosis in Cleveland, Am. J. Hygiene **63**:28-37 (Jan.-May) 1956.
6. Meyer, K. F.: Viral and Rickettsial Infections of Man, 2nd edition, edited by Thomas M. Rivers, Lippincott, Philadelphia, 1952, page 447.
7. Rosebury, Theodor; Ellingson, Harold V.; Meiklejohn, Gordon, with the assistance of Schabel, Frank: A Laboratory Infection With Psittacosis Virus Treated With Penicillin and Sulfadiazine and Experimental Data Bearing on the Mode of Infection, J. Infect. Dis. **80**:64-77, 1947.
8. Volkert, Mogens, reported at the Symposium on Psittacosis (sponsored by Rutgers University and Hartz Mountain Product Company), New York City, February 1956.
9. Quan, S. F.; Meyer, K. F., and Eddie, B.: Attempts to Cure Parakeet Psittacosis Carriers With Aureomycin and Penicillin, J. Infect. Dis. **86**:132-135, 1950.
10. Meiklejohn, Gordon: Personal communication.
11. Wagner, J. C.; Meiklejohn, Gordon; Kingsland, L. C., and Hickish, H. W.: Psittacosis Vaccine Prepared From Chick Embryo Tissues, J. Immun. **54**:35-46, 1946.

Psittacosis (Ornithosis)

Contracted From Parakeet Purchased Locally

QUENTIN CRAMER, M.D., AND C. LESLIE THOMPSON, M.D., *Kansas City*

MANY REPORTS of clinical and laboratory features of psittacosis have appeared in the literature during the last ten or fifteen years and more than 500 cases have been reported in the United States and Canada.

The purpose of reporting the present case of psittacosis is to alert physicians in this area to observe with suspicion any case of what appears to be primarily atypical pneumonia, especially in a patient who fails to respond to treatment, has contact with a possibly infected bird and who has a palpable spleen or hilar extension as visualized on a chest film. Some investigators have taken routine complement fixation tests on all diagnosed primary atypical pneumonia cases and have obtained 25 per cent significant positive reactions.[7]

The complement fixation tests and the injection of infected material in white mice serve to confirm the diagnosis;[3] however, the former is felt to be the safest procedure. The complement fixation titer in most cases reported varied from 1:12 to 1:786.[5] It reached a maximum in eight weeks; but there was no correlation of titers to the severity of the disease.

Various birds have been found to harbor the psittacae or Miyagawanella psittacii virus. These include parakeets, finches, canaries, fulmers, doves, pigeons, ducks, pheasants, chickens and turkeys.[8] The virus is carried in the droppings, saliva and nasal discharges of these birds. Cooper[2] reports that a fleeting contact with the infected fowl is all that is necessary to transmit the disease. The same author has reported human spread in twenty-three cases involving hospital personnel. The virus is inactivated by exposure to 0.5 per cent phenol for twenty-four hours. Levinthal-Coles-Lillie bodies may be demonstrated in infected tissue.

Clinical manifestations are quite variable and are primarily those of aching, malaise, photophobia, sweats, chest tightness, dry cough, severe backache and fever.[6] Some cases present only fever and 75 per cent show changes in chest x-ray. The incubation period is thought to be between seven and thirty days[1] and the lung infiltrates sometimes take as long as three weeks to clear, although some cases will show involvement again in four to six weeks. Splenic enlargement is reported in a few cases but for the most part the spleen is not palpable. A few cases show leukocytosis while others exhibit leukopenia. The mortality rate is reported as being 10 per cent and it is for this reason that these cases must be recognized, isolated and be treated as soon as possible.

The following is a report of a case seen in the Kansas City General Hospital, Kansas City.

REPORT OF CASE

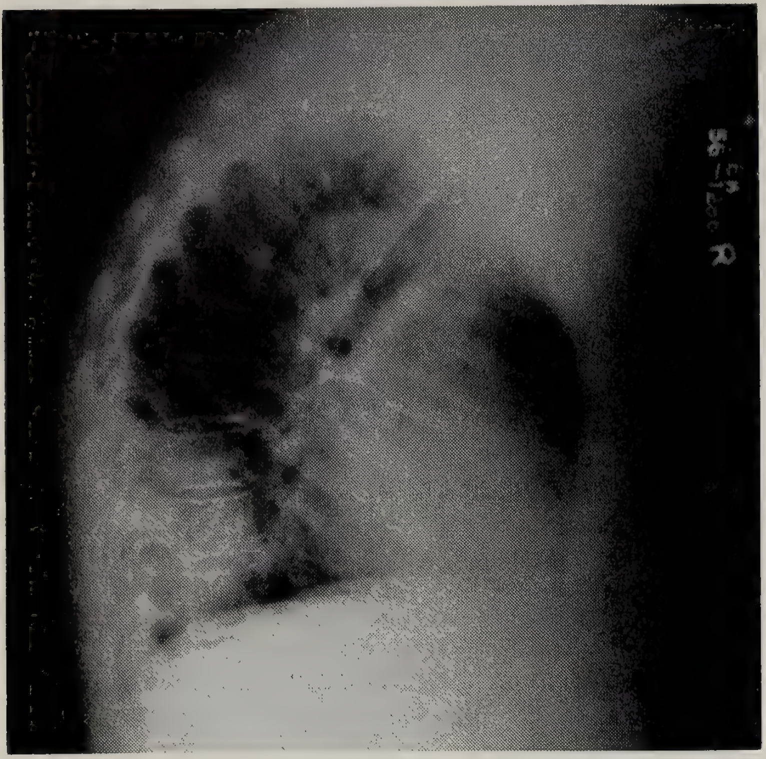
A 57 year old white female was admitted to the Kansas City General Hospital on April 12, 1956, with chief complaints of malaise, anorexia and intermittent chills and fever of approximately two months duration.

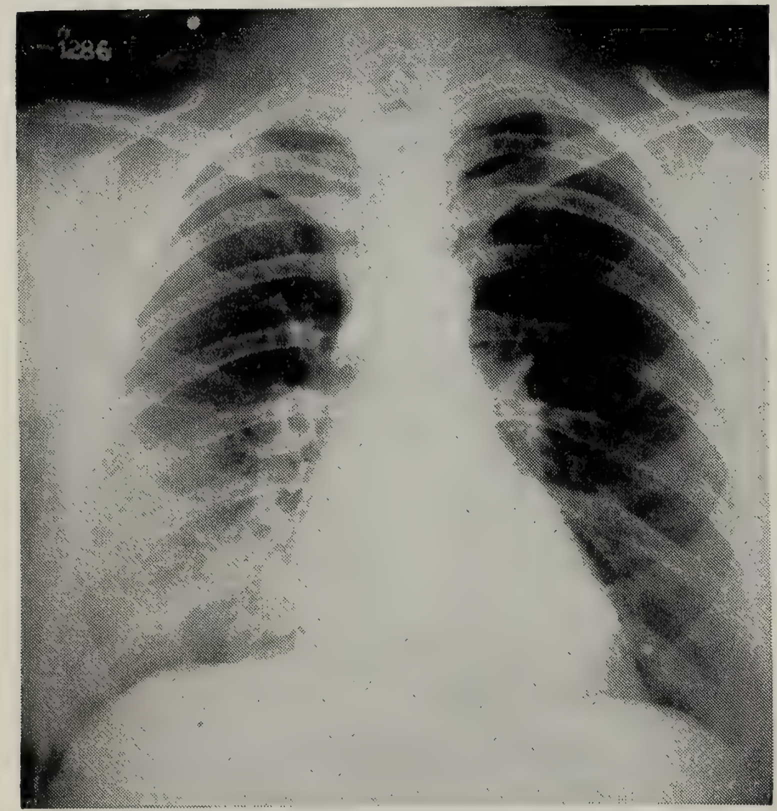
History of Present Illness: She was apparently in good health prior to late February 1956 when she experienced abrupt onset of generalized shaking chills and fever ranging as high as 104 F. She was treated at home by a physician with two injections of penicillin daily for a three day period without apparent immediate benefit; however, in about a week she had remission of the symptoms of chills and fever for approximately six days. She sought no further professional help before being admitted to the hospital and during that period experienced recurrent episodes of chills and fever, lasting two to seven days. During that time, however, malaise, anorexia and lethargy increased in severity and a dry nonproductive cough developed. She denied hemoptysis, wheezing and night sweats, but estimated her total weight loss since onset of the illness at 9 pounds.

Past History: The patient had had typhoid fever at age 18, and questionable malaria at age 28, lasting several weeks with chills and jaundice which responded to treatment with quinine. She had had no serious operations or injuries. Family history was noncontributory.

Physical Examination: Temperature was 102.6 F. (oral), pulse rate 104, respirations 20, blood pressure 134/90. She was a 5 foot, 2 inch, 141 pound, white female who appeared acutely and chronically ill. She was alert and cooperative. Eyes, ears, nose and throat were essentially normal. The neck was supple, the trachea in midline; no adenopathy. Breasts and lymph glands were normal. The thorax was symmetrical with good expansion bilaterally; there was tenderness to palpation along the lateral inferior aspect of the rib cage bilaterally, most marked on the right side. The lungs showed slight dulness to percussion on the right posteriorly below the level of the ninth thoracic vertebra, and on auscultation increased voice and breath sounds were detected, together with crepitant rales over this same area. The heart was completely normal except for tachycardia of 104 per minute. The abdomen showed no palpable organs or masses. Pelvic, rectal and neurologic examinations were not unusual. The skin was hot and dry; there was no icterus.

Admission Laboratory Work: Hematology: Hb. 9.3 gms. (60 per cent), red blood cells 3.58, white blood cells 3,900; differential, neutrophils 67 (filamented 63, nonfilamented 4), lymphocytes 25, monocytes 7, basophils 1. Chemistry: sugar 80 mg. per cent, nonprotein nitrogen 27 mg. per cent. Serology: VDRL nonreactive. Urinalysis: reaction acid, specific gravity 1,023, albumin 1 plus, sugar negative, 3 or 4 red blood cells, 5 or 6 white blood cells, a few hyaline and granular casts. Tuberculin and histoplasmin skin tests were negative. Chest x-ray (posterior, anterior and right lateral): "There is increased density in the right lower lung field which in the lateral projection is posterior and conforms to the distribution of the posterior segment of the right lower lobe. There is calcification of the lung fields in the peritracheal area on the right. Impression: right lower lobe pneumonitis." (See figs. 1 and 2.)





Course in Hospital: The patient was considered to have a viral type pneumonitis and it was felt that psittacosis should be ruled out. On further questioning, it was found that the patient had purchased a parakeet six months prior to admission and that she was still in possession of the bird. Detailed questioning failed to reveal symptoms of sickness in the bird; however, a specimen of her blood was submitted to the U. S. Public Health Service in Atlanta, Georgia, for a psittacosis complement fixation test. Meanwhile, the patient was given 1,000,000 units of aqueous crystalline penicillin initially and was placed on 600,000 units of procaine penicillin twice daily. On the third day of therapy, her temperature returned to normal and the patient began to regain her appetite and overcome the symptoms of malaise and lethargy. The course of penicillin was discontinued on the ninth day and the patient remained afebrile. Sputum cultures failed to produce pathogenic organisms. On April 22 a repeat x-ray study of the chest revealed some haziness and mottling in the right lower lung field which was interpreted as "resolving pneumonia, resolution is not yet complete." For personal reasons the patient insisted on leaving the hospital on April 23, 1956.

On May 1, 1956, the psittacosis complement fixation test was reported positive in a titer of 1:128. The patient was then seen in the clinic and although she was relatively symptom free, a few discrete crepitant rales were still present in the right base posteriorly. Chest x-ray revealed persistence of the infiltration in the right base with a moderate amount of clearing since the previous examination. Accordingly, she was placed on tetracycline therapy of 2.0 gms. per day in divided dosage over a seven day period; at her insistence, on an outpatient basis.

On May 14, 1956, physical examination revealed complete clearing of the pneumonitic process. The patient was completely symptom free. A final recheck x-ray on that date revealed complete clearing of the infiltration.

SUMMARY

A short review of the literature together with a report of a case of psittacosis resulting from a locally purchased parakeet is presented. In view of the ever increasing domestic bird population in the urban districts, prompt reporting of psittacosis is of prime importance so that appropriate public health measures may be instituted and prompt treatment initiated.

1103 Grand Avenue.

BIBLIOGRAPHY

1. Bassett, M. A.: Psittacosis, Indiana M. A. J. **45**:119-121 (February) 1952.
2. Cooper, E. E.: Psittacosis Infestation by Fleeting Contact With a Parakeet, Texas J. Med. **50**:144-148 (March) 1954.
3. Chapman, E. M.: Psittacosis, Case in Cape Cod, J.A.M.A. **147**:143-144 (December) 1951.
4. McCullah, A.: An Epidemic of Psittacosis in Poultry Workers, Texas J. Med. **51**:817-821 (December) 1955.
5. Perlman, L., and Milger, A.: Psittacosis, Arch. Int. Med. **94**:82-93 (July) 1954.
6. Seibert, R. H.; Jordan, W. S., and Dingle, J. H.: Clinical Variations in the Diagnosis of Psittacosis, New England J. Med. **254**:925-930.
7. Sigel, M.; Cole, L. S., and Hunter, O.: Mounting Incidence of Psittacosis. Am. Pub. Health J. **43**:1418 (November) 1953.
8. Ward, C. G., and Birge, J. P.: Psittacosis Following Contact With Pheasants, J.A.M.A. **150**:217-219 (Sept. 20) 1952.

Special Articles

Medicine's Legislative Problems in Missouri

WALTER S. SEWELL, M.D., *Springfield*

President-Elect, Missouri State Medical Association

MR. PRESIDENT, Governor-elect Blair, Judge Smith and members and guests of the Clay County Medical Society.

I want to express my appreciation for your invitation to meet with you tonight, and to be numbered among this distinguished group of speakers.

I thought you might be interested in a brief outline of what we now see as medicine's main legislative problems in Missouri for 1957. I will not attempt to cover these in detail but simply try to name them—hit the high spots, so to speak.

Principally, I think we have five legislative matters of special interest affecting the health care of the public in Missouri. (And I would like to say here that I think we are fortunate that we will have a governor in office who has indicated a good deal of interest in the important problems of health care.)

First, let us look at the mental health program in Missouri. This is a complex situation—the care of these people requires the skill of many kinds of experts. But we should never lose sight of the fact that mental health care is fundamentally a medical problem.

Some of the remarks of Governor-elect Blair during the campaign were gratifying in this connection. I think his support of the idea of having medically qualified people in the appropriate positions throughout the program is what we need.

There are indications that in the last several years the people of Missouri have progressed in their attitudes toward mental health.

We may now be on the threshold of a truly enlighted era in our program. We have been behind—we could take the lead. To do this, however, I feel we will need a statutory provision for a medical advisory committee—made up of qualified physicians—for the Division of Mental Diseases. I think it is important, too, that the Director of the Division be a qualified psychiatrist.

Another matter of legislative importance will be in the field of rehabilitation of the disabled. The year 1957 will undoubtedly bring a greatly expanded program here as a result of the new disability benefits under the federal Social Security law. As you know, totally and permanently disabled people now become eligible for Social Security benefits at age 50. If they can be benefited, however, they may be required to take rehabilitation courses.

This, too, is largely a medical problem—in the examination for disability, the decision as to who would be benefited by rehabilitation and the therapy to be followed in helping to alleviate these conditions.

At present there is a voluntary arrangement for a medical advisory committee in the state rehabilitation service—and this has worked very well. But in view of the expansion of the program, I think serious consideration should be given to placing this committee on a statutory basis.

Another of the changes in the Social Security laws last year will also require state action affecting medicine. This is the provision of separate matching funds for medical care for people on the state welfare rolls. Because of the average age and physical condition of these people, medical care is an important factor in their lives. We will be interested in the development of the Missouri program under the new law.

For the fourth legislative matter—we believe strongly in the development of a state system of medico-legal examiners to replace Missouri's antiquated coroner system. A bill to set up such a system failed in the last state legislature—but we will continue our efforts until inquiries into deaths are put on a scientific medical basis throughout the state.

The final legislative problem is the most important—certainly it is the most far-reaching and the most essential to the well-being of all the people of Missouri. It is a problem so big that it may take a period of years before we can realistically expect its final legislative solution. We recognize that it is not an easy thing to bring about a fundamental revision of a long established legislative tradition. There is a big problem of education to be done. How long it will take I shall not try to guess tonight. But I do want briefly to review the main outline of the problem and to make it clear that the medical profession in Missouri is dedicated to its solution.

Since the beginning, the medical profession has recognized that its responsibility goes beyond the care of the individual patient. Its responsibility extends to the health care of the public as a whole.

The Hippocratic oath itself calls for physicians to

Presented before the Clay County Medical Society Meeting, North Kansas City, November 27, 1956. Other speakers included in the program were Governor-elect James T. Blair and Hon. R. Jasper Smith, District Judge.

share their knowledge with each other, for the benefit of the public as a whole. Doctors have formed medical societies for this reason—the Missouri State Medical Association, now more than 100 years old and one of the oldest professional organizations in the state, at its very first meeting adopted resolutions dealing with medical education and practice and the control of impure drugs. At that time—and ever since—the Association has been concerned with sponsoring programs for the public's protection.

In Missouri, we have an important problem of public interest. We have the problem of assuring the public that people licensed to practice health care in Missouri are really competent to do so. Under our present separate licensure laws, they do not have that assurance.

Let me ask this: why does the state require licenses for any profession? The answer is: to protect the people—to assure them that the persons providing services related to the private or public welfare are competent to perform such services. In the case of those who care for the health of the people, it is obvious that we should have the best method possible for setting and maintaining the standards of competence required for a license.

But what is the present situation in Missouri? We have three standards—three boards granting licenses permitting persons to care for the sick—three different sets of laws defining the sorts of practice these groups may engage in.

Now, if there is only one standard for judging the competence of lawyers, and accountants, and architects, there certainly should be a single standard to test whether or not a man can be permitted to treat the health of the people. That should be the standard of scientific competence. Those licensed to care for the sick should surely be required to have a thorough foundation in the technics of medical science.

Two years ago, we proposed legislation to provide for this single standard. The three present boards were to be replaced by a single board, which was to register, license and supervise all practitioners of the healing arts in Missouri.

The bill provided that presently licensed osteopathic physicians and doctors of medicine would be automatically licensed as physicians and surgeons. Presently licensed chiropractors and midwives would have the right to practice within the present limits of the law.

But with these exceptions, the bill specifically provided that it would be unlawful for anyone to treat the sick who was not licensed under the act as a physician and surgeon. It gave the people of Missouri assurance for the future that, for new licenses issued, the person given the right to practice would have attained a necessary and minimum standard of training, knowledge and competence.

As you know, the bill died in the 1955 session of the legislature. It was not exactly defeated—it just was not supported enough. Frankly, I think it died because the legislators felt that the physicians themselves had not really demonstrated that they were behind it—and thus, perhaps, it was not necessary after all. I think we have learned something from that experience. All over the state it has come home to the individual physician that it is not always enough simply to be on the side of right—one has to work for the right.

As you know, we recently polled the entire membership of the Missouri State Medical Association —3,700 strong—on the single license proposal. The results were sensational—more than 52 per cent of the members responded (and Mr. Gallup would say that that is far greater than any reasonable expectation). More important, 91 per cent voted in favor of the single license proposal—and 1,100 physicians—1,100—indicated that they were willing to take time from their daily practices to do what they could in active support of such a bill.

Medicine in Missouri is sincerely and actively interested in the broad picture of health care for the citizens of the state. Missouri needs the protection that a single standard for health practitioners would furnish.

As I said earlier, I do not know when we shall think ourselves ready to make another effort in the legislature to win acceptance for the principle of a single standard. This coming session promises to be a busy one. It will have many important matters to consider in the general field of health. Whether this is the time to introduce the fundamental question of licensure remains to be brought up in circumstances that will work against its getting full and serious consideration.

The closing point I would like to make is that the medical profession is solidly in agreement that the statutes of Missouri need revision to provide for the future a single and adequate standard of licensure for all who diagnose and treat the sick. We are going to work toward this goal. We are going to do what needs to be done to reach it with all the energy and dedication we can muster.

A.M.A. Interim Session

Seattle, Washington, November 27-30, 1956

Report of Missouri Delegates to A.M.A.

Durward G. Hall, Springfield; Arthur S. Bristow, Princeton; F. L. Feierabend, Kansas City; Joseph C. Peden, St. Louis.
Reporter for this meeting, Joseph C. Peden.

The delegates from Missouri were all present at the session and in attendance at meetings of the House of Delegates. Also present were two alternate delegates, Dr. W. J. Shaw, Fayette, and Dr. Rolla B. Wray, Nevada. Missouri was further represented by Dr. H. Relton McCarroll, St. Louis, who served as a delegate from the Section on Orthopedics, and the program for the session was under the chairmanship of the Committee on Scientific Assembly, Dr. Alphonse McMahon, St. Louis. Dr. Carl F. Vohs, St. Louis, President of the Missouri State Medical Association, was also at the session and attended the meetings of the House of Delegates.

Dr. Durward G. Hall served on the reference committee on Report of Officers, the committee which dealt among other things with the addresses of the President, Dr. Dwight H. Murray, Napa, California, and Dr. George F. Lull, Chicago, Secretary, both of which were excellent.

President's Address

Dr. Murray told the opening session that the medical profession, along with business and industry, is caught between those who desire to promote sound government programs and those who desire even more intensely to perpetuate party politics. He said that unfortunately, in recent years, a benevolent federal government appears more attractive to the voting public than the preservation of individual freedoms and that medicine must do its utmost to reverse this trend. He warned against "complacency over governmental encroachment into medical affairs" and expressed anxiety over effects of federal spending upon the practitioner's freedom and the quality of his services. He said "The caliber of medical care cannot be as high when both patient and doctor are dependent upon government. Initiative succumbs to dictation and self-reliance is replaced by the crutch of government."

Medical Ethics

Probably the subject of greatest internal interest in the House of Delegates was the proposed ten section revision of the Principles of Medical Ethics which was originally submitted at the June 1956 session in Chicago. At that session, final action was deferred until the Seattle session. The proposed short version of the Principles was resubmitted at the session with some changes based on suggestions received by the Council on Constitution and By-Laws since last June. The House of Delegates, however, decided to refer them back to the Council on Constitution and By-Laws for further study and consideration.

The reference committee report which was adopted by the House of Delegates included the following statements: "Careful consideration was given to the Preamble and the ten sections of the proposed Principles. The Preamble and seven of the ten sections appear to be acceptable in their present form. Sections 6 and 7 were not acceptable as presented either to the group which appeared at the hearing or to your reference committee.

"Out of the general discussion, the reference committee received the crystallized opinion that at least four areas needed more specific attention in Sections 6 and 7. These are (1) Division of fees, (2) the dispensing of drugs and appliances, (3) the corporate practice of medicine, and (4) greater emphasis concerning the relationship between physicians and patients.

Since this has been a subject of great interest and debate in the House in the last several sessions, more is given from the reference committee report, as follows:

"In addition, the reference committee felt that the wording in Section 10 could be improved to read as follows: 'The responsibilities of the physician extend not only to the individual but also to society and deserve his interest and participation in activities which have as their objective the improvement of the health and welfare of the individual and the community.'

"In view of the above your reference committee believes that the proposed Principles of Medical Ethics should be referred back to the Council on Constitution and By-Laws for further study and consideration of the above stated principles.

"In the short space of time at our disposal and in view of the importance of the subject, your reference committee did not deem it wise to attempt to properly phrase these concepts."

The final recommendation of the reference committee was extremely practical and it is hoped that it will be carried out thoroughly and that a satisfactory solution of this subject can be obtained at the next A.M.A. session. The recommendation was "We would also recommend that if possible this study be completed at least six weeks prior to the June session and that the new version be published in *The Journal* in order that all interested physicians might have an opportunity to comment thereon."

Policy of Prepaid Plans

Attention of the delegates was called to the importance of physicians participating actively in the formation of policy of the prepaid medical care plans by a resolution which was adopted by the House. The resolution encouraged the retaining of the responsibility by the medical profession of those plans which are under their direction and sponsorship.

Veterans' Medical Care

Delegates were informed "that liaison with the American Legion has not been productive thus far." Probably the actions of this House of Delegates will not improve that situation. The House revised the A.M.A. policy on veterans' medical care by endorsing in principle the recommendation of a suggested statement by the Council on Medical Service, as follows:

"With respect to the provision of medical care and hospitalization benefits for veterans in Veterans Administration and other federal hospitals that new legislation be enacted limiting such care to veterans with peacetime or wartime service whose disabilities or diseases are service incurred or aggravated."

This action would refer back to June 1953 and eliminate the temporary exceptions which were made then by the policy regarding wartime veterans who were unable to defray the expenses of necessary hospitalization for nonservice connected cases of tuberculosis or psychiatric or neurologic disorders. In making this change in policy, the House approved the following supplementary statement:

"We recognize the laws and administrative extensions of the law that are now in operation. We feel that under the circumstances it will be to the best interests of the public in general, and veterans in particular, if medical societies, county and state as well as national, develop committees to assist in guaranteeing Veterans Administration hospital admission for service connected cases. While the present law exists, we should help assure that veterans whose illness constitute economic disaster will not be displaced by those suffering short term remediable ills which, at the worst, constitute financial inconvenience."

The House passed two resolutions dealing with veterans, condemning as unlawful the practice of Veterans Administration hospitals which admit patients who are covered by workmen's compensation insurance or by private health insurance and which render bills for the cost of their care. Both resolutions requested the A.M.A. to take action to bring about a discontinuance of such practices by Veterans Administration hospitals, and one of them instructed the Association Secretary to obtain from each state testimony or records of each known case that violates the VA Regulation 6047-D1.

Interim Sessions

A resolution recommending the discontinuance of the interim sessions, or clinical meetings, was introduced and rejected by the House of Delegates.

The press coverage of the Seattle meeting was outstanding in the amount of material that was used and in the accuracy of the reporting of happenings. It was felt by some delegates that this splendid coverage, showing the interest of the public, as manifested by the amount of space given to it by the newspapers, was one of the factors in the decision by the House of Delegates to continue the interim sessions. The reference committee report stated:

"We believe that the interim sessions should be continued because of the public relations value of these meetings to the Association and the educational value to physicians and the general public in the various geographical areas involved.

"It is the suggestion of the reference committee that maximum attention be given to these potential benefits in selecting a city for the interim meeting.

"It is our further recommendation that the Board of Trustees consider the advisability of holding an Interim Meeting of the House of Delegates in Chicago each November or December and an Interim Scientific Session in November or December of each year in different parts of the United States. The reference committee suggests that the views of the Board of Trustees in this regard be reported to the House of Delegates next June."

In this connection, it is not only the public which is impressed by a session of the A.M.A. Each time one studies the Handbook which is published for the information of delegates, one becomes more impressed and all but appalled by the complexity, the ramifications and just the great amount of work that is done by the A.M.A., and impressed also with the expenses that have to be involved in the carrying out of the duties of such a complex organization.

Hospitalization for Alcoholics

To implement educational approaches to the problem of alcoholism, the House of Delegates approved a statement submitted through the Board of Trustees by the Council on Mental Health and its Committee on Alcoholism. The House also recommended that the statement be brought to the attention of the Council on Medical Education and

Hospitals, the Joint Commission on Accreditation of Hospitals and the American Hospital Association. It includes the following:

"The Council on Mental Health urges hospital administrators and the staffs of hospitals to look upon alcoholism as a medical problem and to admit patients who are alcoholics to their hospitals for treatment, such admission to be made after due examination, investigation and consideration of the individual patient. Chronic alcoholism should not be considered as an illness which bars admission to a hospital, but rather as qualification for admission when the patient requests such admission and is cooperative, and the attending physician's opinion and that of hospital personnel should be considered. The chronic alcoholic in an acute phase can be, and often is, a medical emergency."

Radioactive Isotopes

Broadening the hospital use of radium and radioactive isotopes from the action of 1951 which limited it to board certified radiologists, a new policy statement was adopted by the House, which was:

"In any hospital in which a patient is to receive radium or the products of radium or artificially produced isotopes, there should be a duly appointed Committee on Radium and Artificially Produced Radioisotopes of the hospital professional staff. This committee should include, but not necessarily be limited to, the following qualified physicians: a radiologist, a surgeon, an internist, a gynecologist, a urologist and a pathologist. This committee should have available such competent consultation of other physicians and scientific personnel as may be required by it. Where this is not practicable, the hospital staff should consult the nearest Committee on Radium and Artificially Produced Radioisotopes.

"In any hospital, the use of radium or its products and artificially produced radioactive isotopes for diagnostic or therapeutic purposes shall be restricted to qualified physicians so judged by the Committee on Radium and Artificially Produced Radioisotopes of the professional staff to be adequately trained and competent to their particular use.

"It is recommended that procurement, storage, dosimetry control and inventory of all radioactive isotopes for the use of the hospital staff and radiologic safety control be centralized and, where administratively possible, centralization be located in the Department of Radiology.

"It is recommended that the Board of Trustees assign to the appropriate council or committee the continuous study of the problems of radiologic safety control in the use of radium and its products and artificially produced radioactive isotopes for diagnostic or therapeutic purposes."

Fluoridation

The American Medical Association has followed closely the recommendations of the American Dental Association in its sponsoring of fluoridation of water supplies but at this session, it was decided to conduct a year's study of "all presently available information concerning the fluoridation of public water supplies." The Council on Pharmacy and Chemistry and on Foods and Nutrition were directed to conduct a joint study and to present a documented report of findings and recommendations at the December 1957 session.

Medical Practices

A progress report of the Committee on Medical Practices was approved which amended one of its directives, in order to remove any legal objections, to read as follows: "The A.M.A. representatives on the Joint Commission on Accreditation of Hospitals be instructed to stimulate action by that body leading to the warning, provisional accreditation, or removal of accreditation of community or general hospitals which exclude or arbitrarily restrict hospital privileges for generalists as a class regardless of their individual professional competence where such policies adversely affect the quality of patient care rendered. Any action taken should be only after appeal to the Commission by the county medical society concerned." A study group to consider the best background preparations for general practice was recommended and it was urged that such action be implemented as soon as practicable.

Active Session

These are the matters before the House of Delegates at the Seattle session that seem of most importance, although many others were considered. Among them were the direction of the Board of Trustees to continue its investigation of the practicability of developing a statement of A.M.A. policies and to arrange for the periodic publication or revised versions of such a policy statement; the work of the 74,348 members of the Woman's Auxiliary was noted and approved; approved the principle of a voluntary reduction in the self assigned quota of interns as printed in the 1956 handbook of the National Intern Matching Program; instructed the Board of Trustees to accentuate cooperation between the American Medical Association and the American Bar Association toward the enacting of a bill of the Jenkins-Keogh type.

President's Page

Public Law 569, providing medical care for the dependents of the uniformed personnel of our country, went into effect December 7, 1956. The program is known as "Medicare."

As explained in the letter sent to all members, and reprinted in this issue of Missouri Medicine, the two Blue Shield plans of our state have been designated to act as fiscal agents for this program. The plans are prepared to supply you with information and forms in the event you have an eligible patient.

The program as approved by the Congress is quite different from that which was envisioned by the members of the medical task force of the Hoover Commission which made recommendations to the government a few years ago.

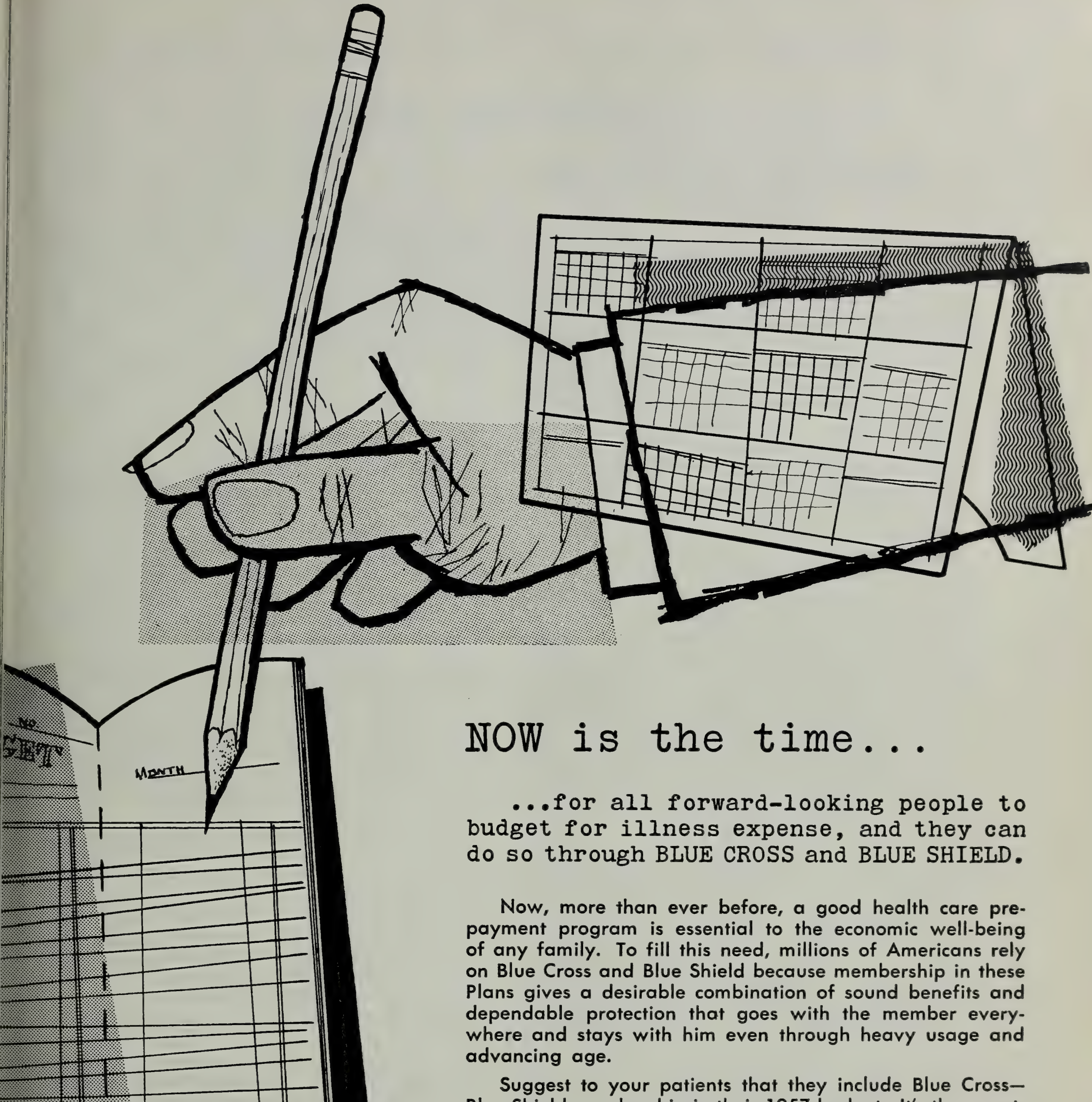
That group, of which Dr. Evarts Graham of St. Louis was a member, made the following recommendations:

"That the government develop for dependents (within the United States) of military personnel a voluntary contributory plan of medical care and hospital insurance to be conducted through a pool of private health insurance agencies, for inpatient care and, as far as practicable, outpatient care; and that in this case the federal government pay a greater portion of the cost than might be determined by the Congress for civilian employees. Such insurance for dependents would be convertible to family coverage on completion of military service."

"That the government develop for dependents of uniformed personnel of the Public Health Service, the Coast Guard, and the Coast and Geodetic Survey, a voluntary contributory plan of medical care and hospital insurance similar to that which we have recommended for military dependents."

Only time will determine whether or not the Hoover Commission recommendation, had it been enacted, would have been the best program for the American public.

Carl F. Vohs M.D.



NOW is the time...

...for all forward-looking people to budget for illness expense, and they can do so through BLUE CROSS and BLUE SHIELD.

Now, more than ever before, a good health care prepayment program is essential to the economic well-being of any family. To fill this need, millions of Americans rely on Blue Cross and Blue Shield because membership in these Plans gives a desirable combination of sound benefits and dependable protection that goes with the member everywhere and stays with him even through heavy usage and advancing age.

Suggest to your patients that they include Blue Cross—Blue Shield membership in their 1957 budget. It's the surest, most practical way to finance health care.

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EDITORIALS

Medicare

Because of the importance, since it is now law, of the Medicare program, material which was sent to all licensed physicians in the State of Missouri by mail early in December is presented for members to review again. The letter accompanying the one enclosure read:

"As you know, the Dependent's Medical Care Act ('Medicare') goes into effect this Friday, December 7.

"Indications are that many patients will seek care under this law within the first week or two. Thus, although we are still in the process of formally signing the contract negotiated with the government less than two weeks ago, and many of the administrative details of the program still remain to be worked out, we are sending you this preliminary information in case dependents covered by the law apply to you for care.

"You will recall that the membership of the Missouri State Medical Association was polled to determine whether or not we should proceed with a contract under the Dependent's Medical Care Act. The results of that poll show that of the 1,478 physicians who responded, 1,288 (87 per cent) were in favor of proceeding, and 190 were against. As a consequence, the Association has negotiated a contract with the Department of Defense, along with a schedule of maximum allowances to be paid for service under the program.

"In accordance with the directions of the House of Delegates and the Council, arrangements have been made with the two Blue Shield Plans in Missouri to handle the fiscal administration of the program, to process the service reports from physicians and to make payments to them on behalf of the government. Although Blue Shield personnel will take care of the fiscal details for the Missouri State Medical Association, Medicare will be a separate and distinct operation from the Blue Shield program, and the schedule of allowances, of course, applies only to Medicare.

"The enclosed sheet contains preliminary information about identification of eligible dependents, and a very abbreviated list of the allowances for the most common procedures for reference until the complete schedule can be printed.

"A sample of the form developed and issued by the government for reporting service under the Medicare program is also enclosed. Instructions for filling out the form, and an explanation of treatment authorized in civilian facilities under the program, are printed on the reverse side.

"In reporting treatment, three copies of the form will be needed—two to be sent in to the Blue Shield fiscal agent in your area and the third for your files. Unfortunately, our present stock of these forms is short. When more are received, we plan to send each physician a supply. In the meantime, if you receive a patient whom you are willing to accept under this program, please request a set of forms from your Blue Shield Plan. (Please do not use standard Blue Shield report forms for service rendered under the Medicare program.)

"Complete Medicare forms should be sent to the Blue Shield office that serves your area: St. Louis Area, Medicare Office, St. Louis Blue Shield, 3839 Lindell Blvd., St. Louis 8, Mo.; Kansas City Area, Medicare Office, Kansas City Blue Shield, Post Office Box 169, Kansas City 41, Mo.

"As soon as possible, we will send you complete information about the program, including the full schedule of allowances that has been agreed upon. The schedule covers some 1,600 medical and surgical procedures, including anesthesia, radiology and pathology services when billed by the physician.

"Meanwhile, if questions arise about the program, specific allowances and such, please call the Missouri State Medical Association or the Medicare office at the Blue Shield Plan in your area.

"In any program as new as this, we can expect a number of rough spots. Contrary to the impression given by reports published in the press—which were apparently inspired by releases made in Washington—we have not received in advance all the information and material needed to set a perfected program in motion. We ask you to bear with us through these initial phases until the Association and its fiscal agents can work out the administrative details and get the program running smoothly."

The letter was signed by the President of the Association, Dr. Carl F. Vohs. The information enclosed with the letter follows:

IDENTIFICATION OF ELIGIBLE DEPENDENTS

Physicians are asked to use reasonable care in identifying patients as eligible for care under the Dependent's Medical Care Act. All persons eligible for treatment under the Medicare law are expected to be furnished with identification cards by June 1957. For the present, in some cases, patients will already have a card identifying them as a military dependent—in other cases, the patient may have written authorization from a nearby military installation. In any case, only the following people are eligible for care from civilian sources:

1. The wife or dependent husband of a person on active duty for 30 days or more with the Army, Navy, Air Force, Marine Corps, Coast Guard or the commissioned corps of the Public Health Service or Coast and Geodetic Survey.

2. Dependent children of such service personnel—that is, unmarried legitimate children (including legally adopted children and stepchildren) under 21 years of age. Dependent children over 21 are eligible if incapable of self-support because of mental or physical incapacity existing before they became 21. Dependent children between 21 and 23 are eligible if enrolled full time in an approved institution of higher learning.

ABBREVIATED LIST OF MAXIMUM ALLOWANCES

Medical Services

In addition to the allowances listed below, in instances in which a medical case requires an unusual amount of the physician's time on the first day of hospitalization, reasonable charges in excess of the hospital visit charge may be authorized by the contracting officer, upon submission of a special report in accordance with the provisions of the contract.

Visits and Examinations

Hospital visits	$ 5.00
Prolonged hospitalization—more than one month—per month (not to apply to first month)	120.00
Hospital care of premature infant—first week	50.00
each week thereafter	28.00

Special Medical Procedures

Consultation for given system not requiring complete examination	$ 15.00
Consultation requiring complete examination—office, hospital or home	25.00
Prolonged detention with patient in critical condition, per hour	20.00
Hospital visit necessitating professional care over and above routine hospital visit	10.00

Obstetric Procedures

Obstetrical delivery, including ante partum and post partum care		150.00
excluding ante partum		75.00
Ante partum care		75.00
First trimester (first 14 weeks of pregnancy)	$18.75	
Second trimester (next 13 weeks of pregnancy)	18.75	
Third trimester (after 27 weeks of pregnancy)	37.50	
Obstetrical delivery (including post partum care)		75.00

Surgery

Biopsy of Breast	45.00
Complete (simple) mastectomy	135.00
Appendectomy	150.00
Hernia, inguinal, unilateral	150.00
Hernia, inguinal, bilateral	200.00
Hernia, ventral, incisional	175.00
Hernia, ventral, recurrent	200.00
Cholecystectomy	247.50
with exploration of common duct	292.50
Hemorrhoidectomy, internal and external	112.50
Salpingectomy, complete or partial, unilateral or bilateral	180.00
Hysterectomy (with or without dilation and curettage and surgery on tubes, ovaries, ligaments, etc.)	225.00
Panhysterectomy: Total hysterectomy (corpus and cervix	270.00
Classic cesarean section	225.00
Dilation and curettage of uterus (independent procedure)	45.00
Ligation and division and complete stripping of long or short saphenous veins	112.50
Ligation and division of minor varicose vein of leg, initial	22.50
Tonsillectomy, with or without adenoidectomy, any age	67.50
Septectomy: submucous resection	135.00
Maxillary sinusotomy, simple, antrum window operation, unilateral	67.50
Pyloromyotomy: cutting of pyloric muscle (Fredet-Ramstedt operation)	225.00
Cystoscopy, diagnostic, initial	22.50
Cystoscopy, with fulguration of bladder tumor, initial	112.50
Circumcision, newborn	13.50
Thyroidectomy, total or complete	270.00

Anesthesia, radiology, radiotherapy, and pathology are provided by schedules, when performed by and billed by physicians.

INSTRUCTION COURSES

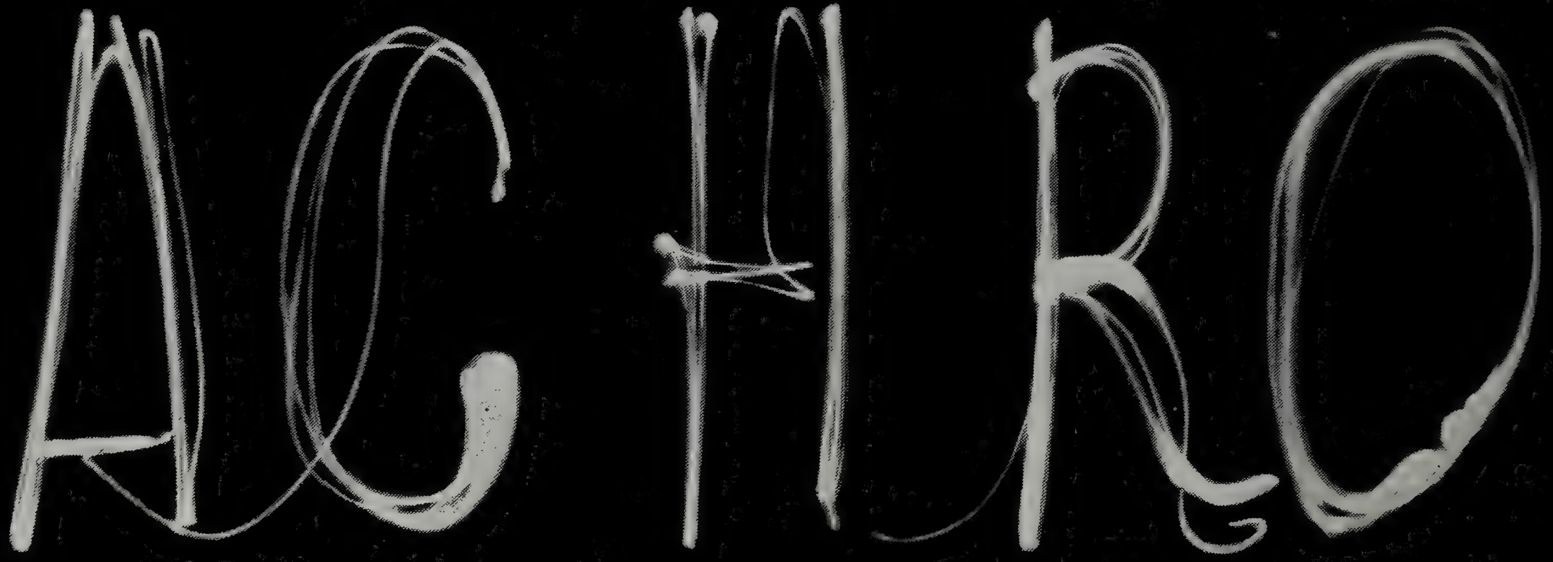
Highlight of the 1957 Program

99th Annual Session

Missouri State Medical Association

See program on page 60

a highlight in therapeutics



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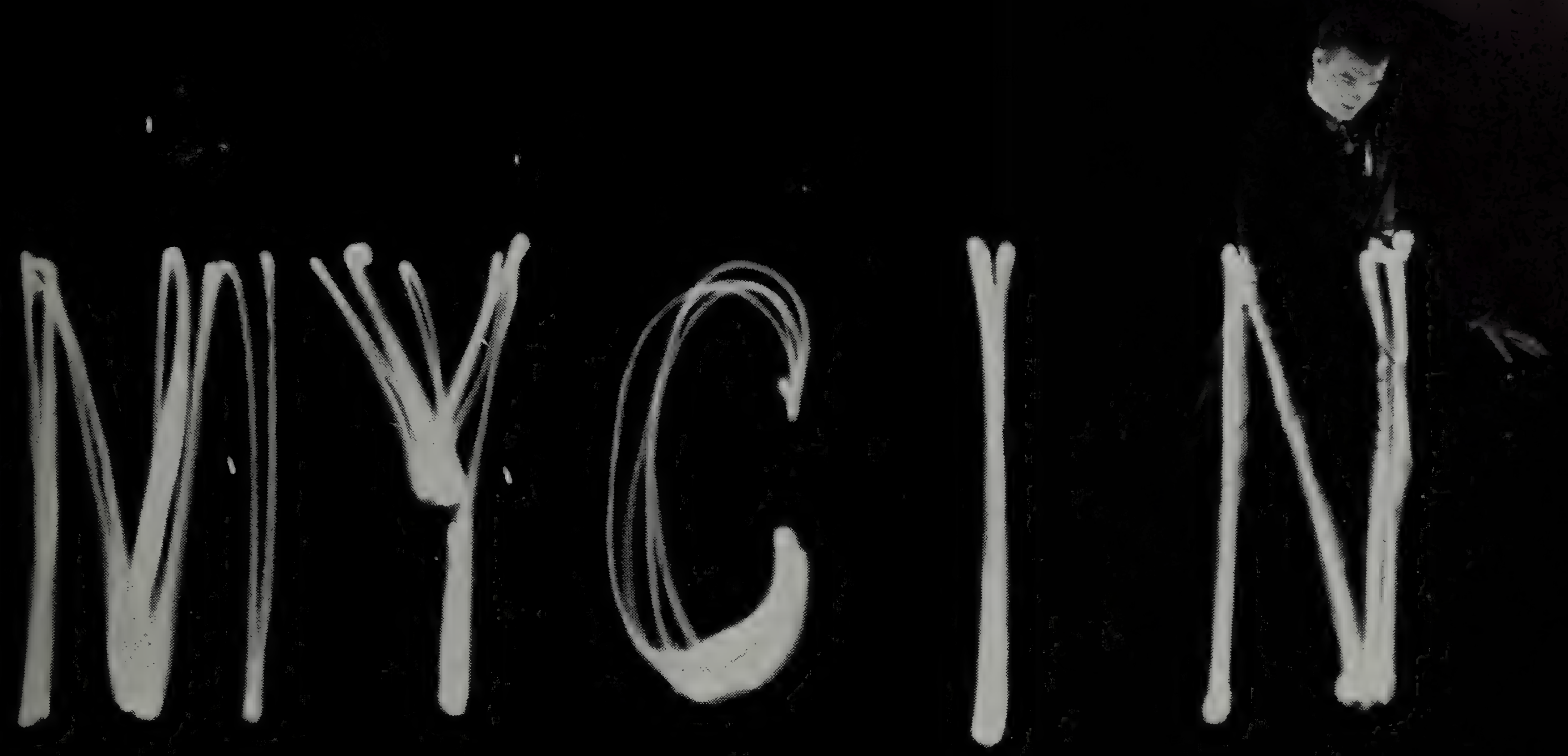

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ACHROMYCIN is available in 21 dosage forms—each with full tetracycline effect—to meet the exacting requirements of modern medicine.

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Missouri Medical Meetings

Missouri State Medical Association Annual Session, Kansas City, March 31, April 1, 2, 3, 1957.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Socitey—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—third Tuesday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—fourth Tuesday of each month execpt June, July and August, at auditorium of General Hospital No. 1.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets only on call.

Johnson County Medical Society—meets only on call.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Webster County Medical Society—meets only on call.

West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

Musings of the Field Secretary

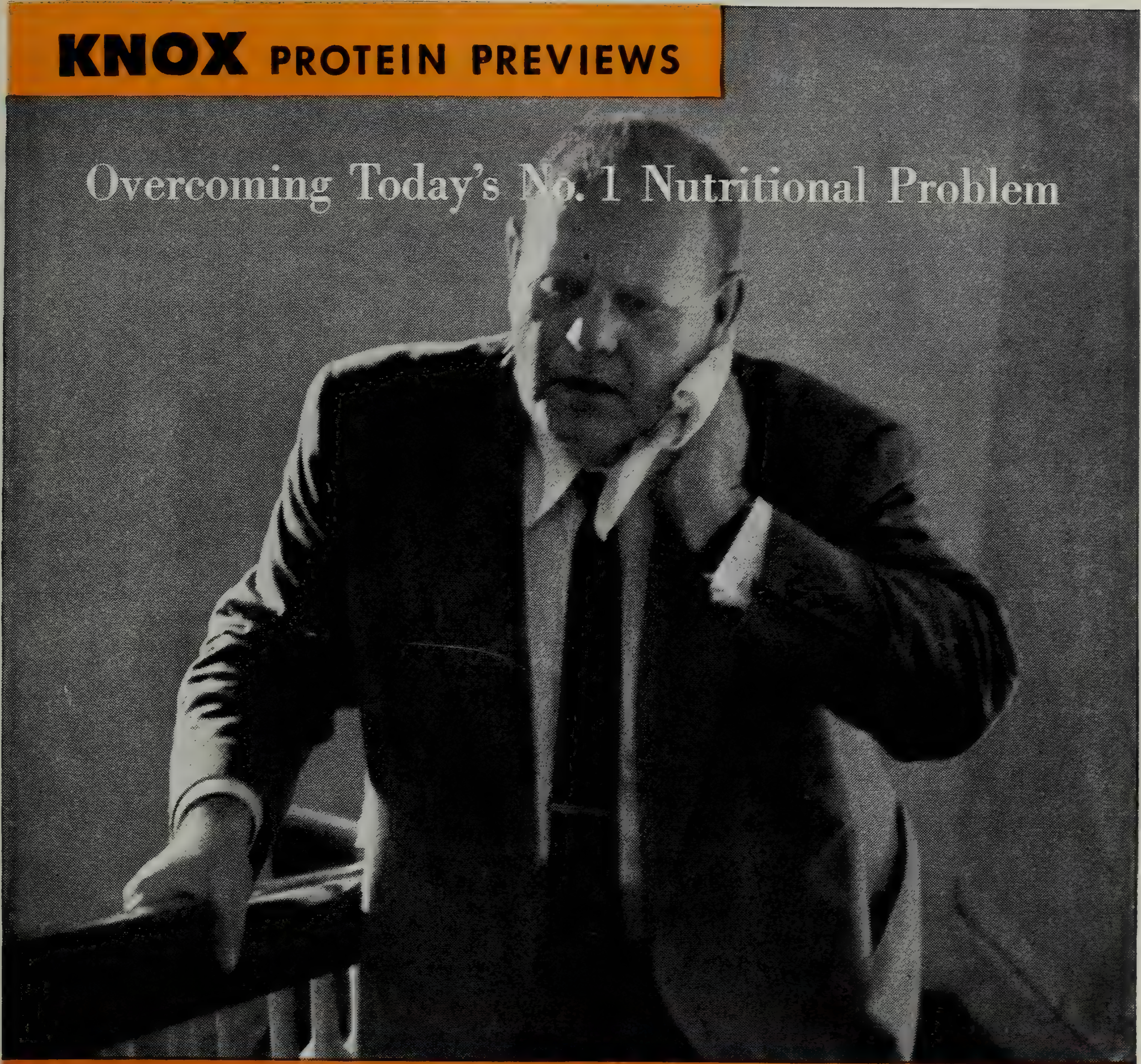
The Woman's Auxiliary to the St. Louis Medical Society did themselves proud with a public relations program at the Society headquarters on Monday, November 19.

More than 300 women, representing various clubs and organizations in the City were guests of the auxiliary on this occasion. Festivities began with a buffet luncheon at noon in the banquet hall. The featured program was then presented in the main auditorium.

Mr. Leo Brown, Chicago, Illinois, Director of the Department of Public Relations, American Medical Association, gave the principal address. He gave an interesting talk describing how the American Medical Association touches our daily lives. He used as an example some of the daily activities of the housewife. On her shopping tour to the grocery store and drug store, Mr. Brown explained how the various councils of the American Medical Association have helped to bring about protecting standards for foods, drugs and cosmetics which she buys. His was an impressive presentation with enthusiastic audience reception.

J. C. Creech, M.D., Troy, Councilor, 4th District, Missouri State Medical Association, Mr. T. R. O'Brien, Executive Secretary, Missouri State Medical Association, and Yours Truly were privileged to appear on the program of the St. Louis County Medical Society at its meeting, November 14, at the County Health Center, Clayton. Activities of the state medical association were discussed followed by a question and answer period. A most enjoyable part of the session took the form of a social hour at which the Woman's Auxiliary to the Society served refreshments at the close of the meeting.

St. Louis County Medical Society meeting was well attended.



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1. Color-coded diets of 1200, 1600 and 1800 calories are based on nutritionally-sound Food Exchanges.[1]

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Please send me .... dozen copies of the new illustrated Knox Reducing booklet based on Food Exchanges.

Your Name and Address

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[1] The Food Exchange Lists referred to are based on material in "Meal Planning with Exchange Lists" prepared by Committees of the American Diabetes Association, Inc., and The American Dietetic Association in cooperation with the Chronic Disease Program, Public Health Service, Department of Health, Education and Welfare.

The Civil Defense Committee of the Missouri State Medical Association held a breakfast meeting at the President Hotel, Kansas City, Sunday, November 25. The present status of the Medical Health Part of the Missouri State Plan for Civil Defense was discussed along with certain suggested considerations for the immediate future.

Beginning at 9:00 a.m. in the Aztec Room of the President Hotel and continuing throughout the day, a varied program on the Medical Health aspects of Civil Defense was presented to an audience of some 200 people from all over the state. Those in attendance represented Medical Health groups who are cooperating in the Missouri Civil Defense Program. This intensive full day program was developed by the Civil Defense Committee of the State Medical Association with much credit due the Chairman, Carroll P. Hungate, M.D., Kansas City.

NEW MEMBERS

Arnold, Roger C., M.D., 457 North Kingshighway Boulevard, St. Louis. St. Louis Medical Society.

Azzouni, J. N., M.D., 8816 Gravois Avenue, St. Louis. St. Louis Medical Society.

Bing, Richard J., M.D., 915 North Grand Avenue, St. Louis. St. Louis Medical Society.

Blalock, William N., M.D., 114 North Taylor Avenue, St. Louis. St. Louis Medical Society.

Bunch, Rob R., M.D., 429 Missouri Theatre Building, St. Louis. St. Louis Medical Society.

Cibis, Paul A., M.D., 640 South Kingshighway Boulevard, St. Louis. St. Louis Medical Society.

Clinger, John M., Jr., M.D., 4000 Locust Street, Kansas City. Jackson County Medical Society.

Devine, Joyce E., M.D., 1645 South Grand Boulevard, St. Louis. St. Louis Medical Society.

Fitzgerald, William T., M.D., 3915 Watson Boulevard, St. Louis. St. Louis Medical Society.

Flotte, Sylvester A., M.D., 915 North Grand Boulevard, St. Louis. St. Louis Medical Society.

Freiermuth, Leo J., M.D., 216 South Kingshighway Boulevard, St. Louis. St. Louis Medical Society.

German, Walter A., Jr., M.D., 1211 South Glenstone, Springfield. Greene County Medical Society.

Hayek, Wesley E., M.D., 915 North Grand Boulevard, St. Louis. St. Louis Medical Society.

Howell, B. D., M.D., 316 Shelby Street, Brookfield. Grand River Medical Society.

Johnson, David S., M.D., 1430 Carroll Street, St. Louis. St. Louis Medical Society.

Knopf, Keith, M.D., 928 North Main Street, Brookfield. Grand River Medical Society.

Kutryb, Walter J., M.D., 6000 West Florissant, St. Louis. St. Louis Medical Society.

Larson, Paul U., M.D., 600 Union Boulevard, St. Louis. St. Louis Medical Society.

Liggett, M. S., M.D., 700 North Kansas Street, Marceline. Grand River Medical Society.

Link, Alexander J., M.D., 212 Metropolitan Building, St. Louis. St. Louis Medical Society.

Little, Monroe H., M.D., 3167 Sheridan Avenue, St. Louis. St. Louis Medical Society.

McCalla, John P., M.D., 1500 West 37th Street, Kansas City. Jackson County Medical Society.

Nash, Homer E., Jr., M.D., 3136 Easton Avenue, St. Louis. St. Louis Medical Society.

Nathan, Lester J., M.D., 216 South Kingshighway Boulevard, St. Louis. St. Louis Medical Society.

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Each tablet contains:

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Caffeine	30 mg.	(½ grain)
Demerol hydrochloride	30 mg.	(½ grain)

Average Dose:

1 or 2 tablets.

Narcotic blank required.

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Demerol (brand of meperidine),
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Rogers, John T., M.D., 2502 Ashland Avenue, St. Joseph. Buchanan County Medical Society.

Rader, George B., M.D., 457 North Kingshighway Boulevard, St. Louis. St. Louis Medical Society.

Smith, William J., M.D., 103 West Colt, Windsor. Henry County Medical Society.

Stamp, Warren G., M.D., 700 South Kingshighway Boulevard, St. Louis. St. Louis Medical Society.

Stokes, James M., M.D., 4960 Audubon Avenue, St. Louis. St. Louis Medical Society.

Vinyard, Jack L., M.D., 2939 Buchanan Street, North Kansas City. Clay County Medical Society.

Waitt, Paul M., M.D., 3200 South 13th Street, St. Louis. St. Louis Medical Society.

Walker, Harvey, Jr., M.D., 216 South Kingshighway Boulevard, St. Louis. St. Louis Medical Society.

Walsh, Thomas J., M.D., 457 North Kingshighway Boulevard, St. Louis. St. Louis Medical Society.

Williams, Earl K., M.D., 915 North Grand Boulevard St. Louis. St. Louis Medical Society.

Willman, Valle L., M.D., 1402 South Grand Boulevard, St. Louis. St. Louis Medical Society.

Yuan, Homer E., Jr., M.D., 2415 North Kingshighway Boulevard, St. Louis. St. Louis Medical Society.

MISSOURI SOCIETY OF MEDICAL TECHNOLOGISTS PREVIEW OF 1957 CONVENTION

The tenth annual convention of the Missouri Society of Medical Technologists will be held in the Municipal Auditorium, Kansas City, March 31, April 1, 2 and 3.

Two symposiums are planned: (1) A Symposium on Enzymes will include discussions of the enzymes amylase, lipase, trypsin, pepsin, phosphatase, cholesterase, dehydrogenase, amylopsin and the much talked of transaminase; (2) a Symposium on Virology will include the handling of specimens for viral study, the use of tissue culture technics in diagnostic virology, the complement fixation and hemagglutinin tests in virology. Each symposium will be followed by a question and answer panel. Demonstrations in both areas will follow the symposiums.

In the field of hematology, new and changing concepts as discussed at the VI Congress of the International Society of Hematology will be brought out. Other hematology subjects include tagged red cells and the laboratory diagnosis of the hemorrhagic diseases.

During the Chemistry Seminar, chromotography, electrolyte balance studies, blood ammonia, continuous flow electrophoresis, protein bound iodine and other interesting chemistry topics will be discussed, followed by a chemistry problem clinic.

Other subjects such as "Statistics and How They Apply in Actual Laboratory Work," "Technologists in Research," "Sources of Error in Laboratory Procedures," "Lipoprotein in Coronary Diseases," "Forensic Medicine," "Laboratory Diagnosis of Systemic Fungal Infections," and "Tedium or Technology" are included.

Speakers on the program include Myron Jorgense, Ph.D.; Milton I. Katz, M.D.; Robert Skillman, M.D.; Mrs. Marie Carr; Angelo Bapi, M.D.; Sr. M. Laureen Harris, SSM.; E. F. Tucker, M.D.; Alvar Werder, Ph.D.; Mrs. J. Carter, Ph.D.; Rose Rita Schmidt; Perry Morgan, Ph.D.; Alex Sweet, M.D.; Jack Hill, M.D.; Lauren Moriarty, M.D.; Herbert Sweets, Jr., M.D.; Thorkil Jensen, Ph.D.; Max Berenbom, M.D.; Robert S. Darrow, M.D.; Harold Grady, Ph.D., and others. A complete program will be published in a later issue.

In FUNCTIONAL UTERINE BLEEDING,[1] the authors report (on the basis of observation of more than 4,000 patients):

"Therapeutically, experience has shown that best results were obtained when the B complex prescribed was derived from Mammalian liver containing all the known as well as the yet unidentified factors of this group."

[1] Biskind, L. H., and Biskind, J. I.: MISSOURI MEDICINE: 53:843-848, (Oct.) 1956.

AS PIONEERS IN WHOLE LIVER VITAMIN THERAPY, WE TAKE JUSTIFIABLE PRIDE IN THE FACT THAT TWO OF OUR PRODUCTS WERE UTILIZED IN THIS STUDY.

- Rawl Whole Liver Vitamin B Complex Capsules (bottles of 100 and 500) desiccated whole liver fortified with B vitamins.
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relaxes
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*for the average
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- well suited for prolonged therapy
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- no blood dyscrasias, liver toxicity, Parkinson-like syndrome or nasal stuffiness
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- does not produce significant depression
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Indications: **anxiety and tension states, muscle spasm.**

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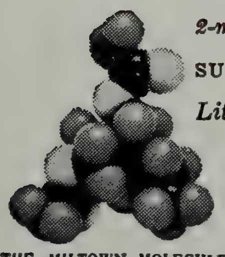

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News

At the annual fall meeting of the Southwest Missouri Chapter of the American College of Surgeons, **Virgil E. Jeans**, M.D., Joplin, was elected president; **George W. Hogeboom**, M.D., Springfield, vice president; **Irwin T. Craig**, M.D., Joplin, secretary-treasurer.

The American Board of Preventive Medicine recently named **Richard A. Sutter**, M.D., St. Louis, Specialist in Occupational Medicine.

Speaking on "Poliomyelitis," **James T. VanBiber**, M.D., Independence, addressed the Walnut Park Daughters of Zion at a recent meeting.

The Grant School P.T.A., Columbia, was addressed by **Ray B. Lewis**, M.D., Columbia, at a November meeting.

In recognition of his outstanding service as a company physician, **W. T. McNew**, M.D., Carthage, was honored by the Hercules Powder Company at a meeting of the Jasper County Medical Society in November.

At a public meeting held November 16 in St. Joseph, **Frederic E. Simpson**, M.D., Columbia, spoke on rheumatic fever.

The Central Association of Obstetricians and Gynecologists recently installed **Harold L. Gainey**, M.D., Kansas City, as president.

Many birthday cards and remembrances were received by **J. Frank Harrison**, M.D., Mexico, on his 85th birthday on November 12.

Sister Mary Lois, a member of the Jackson County Medical Society, left the United States on November 21 for medical mission work in Korea.

More than 250 friends attended a dinner on November 19 at the Eldon Masonic Temple honoring **W. Logan Allee**, M.D., Eldon. A sheepskin scroll carrying the names of those present was presented to Dr. Allee.

"Pelvic Muscle Spasm" was the subject of a paper presented by **George Thiele**, M.D., Kansas City, at the Milwaukee Surgical Society on November 5.

At a recent election, **Paul Baldwin**, M.D., Kennett, was re-elected a county hospital trustee of the Dunklin County Hospital.

At a dinner meeting of the Columbia Chapter of the American Association of University Women on November 20, **E. C. Chiasson**, M.D., Columbia, appeared in a panel presentation.

A review of the history of the x-ray was presented by **S. D. Papp**, M.D., Joplin, and "The Cancer Problem" by **Albert E. Upsher**, M.D., Kansas City, at a meeting in Joplin of the Missouri State Medical Secretaries and Assistants Society.

On November 12, **Hugh Hamilton**, M.D., Kansas City, presented a paper on "Afibrinogenemia as a Postoperative Complication" at a meeting of the Southern Gynecological Society in Washington, D. C.

Serving as a member of a panel presentation on child care at a preschool parent-teacher association meeting in Trenton on November 5 was **W. A. Fuson**, M.D., Trenton.

Approximately fifty persons attended a Parent-Family Life group meeting in Warrensburg in October, at which **Charles M. Lederer**, M.D., Warrensburg, was discussion leader.

The Bonne Terre Rotary Club members on November 5, heard **Jack Mullen**, M.D., Bonne Terre, member of the club, tell how the medical team at the local hospital is preparing for any type of disaster.

At the November 6 election, **William F. Utterman**, M.D., and **Jerome J. Bredall**, M.D., Perryville, were elected trustees of the Perryville Memorial Hospital.

At a quarterly meeting in October of the consulting staff of the Ellis Fischel State Cancer Hospital, the speaker was **Justin J. Cordonnier**, M.D., St. Louis.

The Kansas City Gynecological Society was addressed by **Robert C. Buckner**, M.D., Kansas City, at its meeting on November 15. His subject was "Duhrssen's Incision of the Cervix."

A film on health was presented by **I. D. Kimes**, M.D., Cameron, at a meeting of the Cameron P.T.A. in October.

A program was presented for the Medical Dames, Columbia, at a meeting in October by **M. D. Overholser**, M.D., Columbia.

At a meeting in October, the American Society of Plastic and Reconstructive Surgery elected **Louis T. Byars**, M.D., St. Louis, vice president.

At an October meeting of the Rotary Club in Butler, **A. L. Hansen**, M.D., Butler, spoke on "Diabetes."

The American Diabetes Association has re-elected **Henry E. Oppenheimer**, M.D., St. Louis, as governor of the Association for the State of Missouri, and as secretary of the Association.

At the November session of the Southern Medical Association, **Robert W. Bartlett**, M.D., St. Louis, was elected chairman of the Section on Surgery for 1957.

Named as a medical research program adviser of the National Disease and Therapeutic Index recently is William H. Bartleson, Executive Secretary of the Jackson County Medical Society.

The South Central Section of the American Urological Association meeting in Mexico City in October, named **Justin J. Cordonnier**, M.D., St. Louis, president-elect.

The Mississippi Valley Conference on Tuberculosis, meeting in Detroit on October 13, elected **Florence E. MacInnis**, M.D., Kansas City, vice president.

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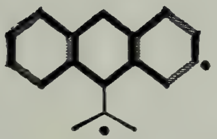
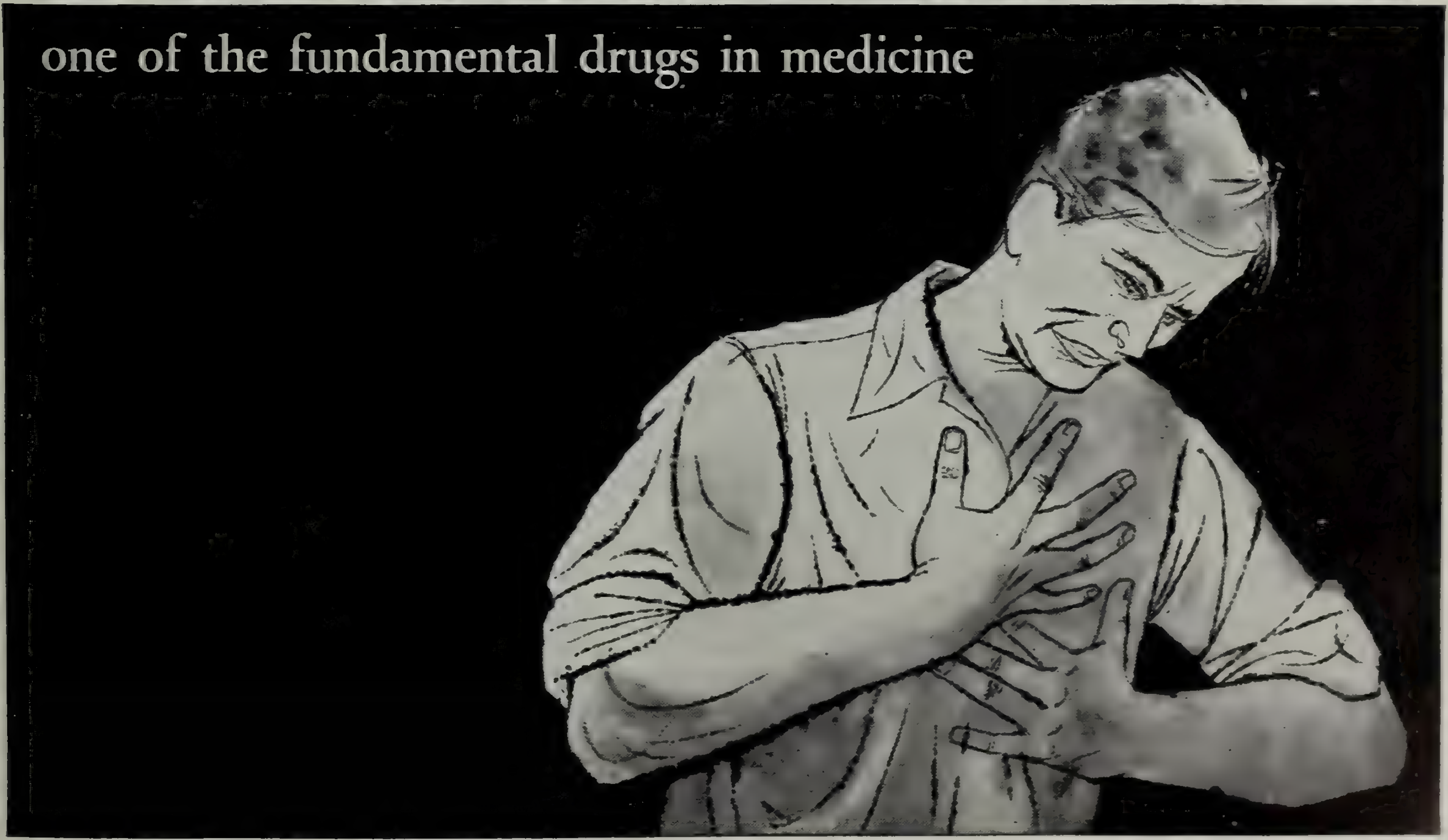


Smith, Kline & French Laboratories, Philadelphia

[1] Ende, M.: Am. Pract. & Dig. Treat. 6:710 (May) 1955.

*T.M. Reg. U.S. Pat. Off. for chlorpromazine, S.K.F.

THORAZINE*



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MISSOURI STATE MEDICAL ASSOCIATION

The 99th Annual Session of the Missouri State Medical Association will be held at the Municipal Auditorium, Kansas City, March 31, April 1, 2 and 3, 1957.

TIME AND PLACE OF MEETINGS

Sunday, March 31

12:00 p.m. Registration for Delegates, Arena, Municipal Auditorium.
1:30 p.m. House of Delegates, Little Theater, Municipal Auditorium.
3:30 p.m. Reference Committees, Municipal Auditorium.

Monday, April 1

8:00 a.m. Registration, Arena, Municipal Auditorium.
8:00 a.m. Motion pictures, Little Theater, Municipal Auditorium.
9:00 a.m. Scientific Session, Little Theater.
10:00 a.m. Intermission to View Exhibits.
10:30 a.m. Scientific Session, Little Theater.
12:00 noon. Committee on Maternal Welfare Luncheon, Muehlebach Hotel.
1:30 p.m. Motion pictures, Little Theater.
2:00 p.m. Scientific Session, Little Theater.
3:30 p.m. Intermission to View Exhibits.
4:00 p.m. House of Delegates, Little Theater.
5:00 p.m. Reference Committees, Municipal Auditorium.

Tuesday, April 2

8:00 a.m. Registration, Arena, Municipal Auditorium.
8:00 a.m. Motion pictures, Little Theater, Municipal Auditorium.
9:00 a.m. Scientific Session, Little Theater.
10:30 a.m. Intermission to View Exhibits.
11:00 a.m. Scientific Session, Little Theater.
12:00 noon. University of Missouri Alumni Luncheon, Muehlebach Hotel.
1:30 p.m. Motion pictures, Little Theater.
2:00 p.m. Scientific Session.
3:30 p.m. Intermission to View Exhibits.
4:00 p.m. Scientific Session.
7:30 p.m. Annual Banquet in Honor of Past Presidents.

Wednesday, April 3

8:00 a.m. Registration, Arena, Municipal Auditorium.
8:00 a.m. Motion pictures, Little Theater, Municipal Auditorium.
9:00 a.m. Scientific Session, Little Theater.
10:30 a.m. Intermission to View Exhibits.
11:00 a.m. Scientific Session, Little Theater.
12:00 noon. Intermission.
1:30 p.m. House of Delegates, Little Theater.

SCIENTIFIC PROGRAM

Monday, April 1, 1957, Little Theater, Municipal Auditorium

8:00 a.m. Motion pictures.
9:00 a.m. Practical Application of the Laboratory in Diabetes Mellitus, Thomas W. Burns, M.D., Columbia.
9:30 a.m. Therapy of Malignant Lyphomas, Henry D. Diamond, M.D., New York, N. Y.
10:00 a.m. Intermission to View Exhibits.
10:30 a.m. Diagnosis and Treatment of Common Skin Disorders, Sture A. M. Johnson, M.D., Madison, Wis.
11:00 a.m. Ovarian Carcinoma: Diagnosis and Treatment, Stuart Abel, M.D., Chicago, Ill.
11:30 a.m. Treatment of Cancer of the Cervix, J. A. del Regato, M.D., Colorado Springs, Colo.

SCIENTIFIC SESSION

1:30 p.m. Motion pictures.
2:00 p.m. Surgical Considerations of Acquired Diseases of the Aorta: Analysis of 500 Cases, Michael E. De Bakey, M.D., Houston, Texas.

2:30 p.m. Panel on Pediatrics, F. R. Crouch, M.D., Farmington, Moderator.
Panelists: Peter G. Danis, M.D., St. Louis.
J. A. Kinder, M.D., Cape Girardeau.
R. B. Anderson, M.D., Kansas City.
Walter R. Hepner, M.D., Columbia.

3:30 p.m. Intermission to View Exhibits.

4:00 p.m. House of Delegates.

SCIENTIFIC SESSION

Tuesday, April 2, 1957, Little Theater, Municipal Auditorium

8:00 a.m. Motion pictures.

9:00 a.m. Instruction Courses (attendance limited to 20 persons each):
The Menopausal Patient, H. C. Willumsen, M.D., St. Joseph
Office Proctology, Mark M. Marks, M.D., Kansas City.
The Neurologic Examination, William P. Williamson, M.D., Kansas City, Kansas.
Electrocardiograph Interpretation, Michael Bernreiter, M.D., Kansas City.
Jaundice, William A. Knight, Jr., M.D., St. Louis.

9:45 a.m. Instruction Courses (attendance limited to 20 persons each):
Hypertension, James Murphy, M.D., St. Louis.
Obstetric Emergencies, J. L. Johnston, M.D., Springfield.
Treatment of Common Foot Conditions, Paul W. Meyer, M.D., Kansas City.
The Patient With a Painful Back, Ralph K. Earp, M.D., St. Louis.
Fluid and Electrolyte Balance, Harry Statland, M.D., Kansas City.

10:30 a.m. Intermission to View Exhibits.

11:00 a.m. Goiter Problems Encountered in Everyday Practice, Robert W. Bartlett, M.D., St. Louis.

SCIENTIFIC SESSION

1:30 p.m. Motion pictures.

2:00 p.m. A Three-fold Division of Medical Care Expenditures, Leonard W. Martin, Chicago, Ill.

2:30 p.m.
Thomas H. Alphin, M. D., Washington, D. C.

3:00 p.m. The Present Status of Anticoagulants, William T. Foley, M.D., New York, N. Y.

3:30 p.m. Intermission to View Exhibits.

4:00 p.m. Clinical Pathologic Conference, Victor B. Buhler, M.D., Kansas City, Moderator.

730 p.m. Annual Banquet in Honor of Past Presidents.

SCIENTIFIC SESSION

Wednesday, April 3, 1957, Little Theater, Municipal Auditorium

8:00 a.m. Motion pictures.

9:00 a.m. Maxillo-facial Injuries, Clifford L. Kiehn, M.D., Cleveland, Ohio.

9:30 a.m. Chest Injuries, John H. Mayer, Jr., M.D., Kansas City.

10:00 a.m. Cord Injuries, George L. Hawkins, Jr., M.D., St. Louis.

10:30 a.m. Intermission to View Exhibits.

11:00 a.m. Panel: The Multiple Injury Patient, O. P. J. Hampton, M.D., St. Louis, Moderator.
Panelists: Howard E. Snyder, M.D., Mayfield, Kansas.
Herbert A. Hamel, M.D., Kansas City.
Leonard T. Furlow, M.D., St. Louis.
Clifford L. Kiehn, M.D., Cleveland.

1:30 p.m. House of Delegates.

Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Clay County Medical Society

The annual Clay County Medical Society Clinical Conference was held at the Elms Hotel, Excelsior Springs, on Thursday, November 1, 1956.

The Conference got under way with a luncheon meeting at noon, at which Dr. Victor B. Buhler, pathologist, Kansas City, Missouri, spoke on "The Need for a Medical Examiner System in Missouri."

Speakers and officers were seated at the head table.

The afternoon session began at 1:30 p.m. Subjects discussed at this session included: "Varicose Veins," "Juvenile Diabetes," "Atherosclerosis" and "Psychological Problems in the General Practice of Medicine." The discussants on the afternoon program were all guest speakers from out of the state.

A banquet meeting was part of the Conference.

A social hour get-together was held in the evening preceding the dinner for members of the Clay County Society, the Auxiliary and guests.

The speaker for the evening program was Wallace Graham, M.D., Kansas City, Missouri, who spoke on "Medical Experiences in the Middle East."

Approximately seventy-five doctors were in attendance, and many of them brought their wives who were privileged to attend a special program presented by the Woman's Auxiliary of the Clay County Society.

The Society's program committee for the Clinical Conference included Drs. S. R. McCracken, Chairman, Dean F. Werner, Earl R. Knox, W. H. Goodson and Ralph L. Nicholson, members.

S. O. SCHROEDER, M.D., *Secretary*

Grand River Medical Society

The Grand River Medical Society met on November 8 at the Strand Hotel in Chillicothe. There was a good attendance of both members and the Woman's Auxiliary. Also, three pharmaceutical representatives were present.

After dinner, the Auxiliary retired to their meeting, and the scientific program was presented by Dr. Creighton Hardin, Department of Surgery, Kansas University Medical Center, Kansas City, Kansas, who discussed "Vascular Surgery." His lecture was illustrated with slides and was interesting and scientific. Questions and discussion followed his formal presentation.

The fine projector and screen, presented to the Society by Dr. and Mrs. A. S. Bristow, was received and much appreciated. The president suggested that the secretary write a letter of thanks and appreciation to Dr. and Mrs. Bristow.

The following society officers were elected for 1957: President, Frank R. Daley, M.D., Hamilton; 1st Vice President, Charles M. Grace, M.D., Chillicothe; 2nd Vice President, E. W. Allen, M.D., Carrollton, and Secretary and Treasurer, E. A. Duffy, M.D., Trenton.

Minutes of the last meeting were read and approved. There being no further business, the Society adjourned.

E. A. DUFFY, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

A dinner meeting of the Chariton-Macon-Monroe-Randolph County Medical Society was held at the Woodland Hospital, Moberly, Thursday night, November 8.

The scientific program of the evening was given by Dr. Robert Hasson, Moberly, who spoke on "The Importance of Facts in Nutrition."

Following the scientific program, society officers for the year 1957 were elected as follows: Daniel D. Stuart, M.D., Brunswick, President; W. D. Chute, M.D., Moberly, Vice President; Robert H. Young, M.D., Moberly, Secretary-Treasurer.

Eighteen members of the Society were present at the meeting.

ROBERT H. YOUNG, M.D., *Secretary*

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FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

On October 22, a joint meeting of the Jefferson County Medical Society and the Jefferson Memorial Hospital Staff was held at the Health Center in Hillsboro.

All high school coaches in the county were invited to this meeting for a program on "Prevention and Care of Athletic Injuries." The principal speaker was Dr. Richard T. Odell of the Department of Orthopedic Surgery, Washington University Medical School, St. Louis.

Coffee and doughnuts were served after the scientific discussion.

A good attendance was present at this session and something of this sort is planned as an annual affair.

Meeting of November 20

A called meeting of the Jefferson County Medical Society was held at 8:30 p.m., November 20, at the Health Center Building in Hillsboro.

Dr. Ernest T. Rouse, Associate Professor of Medicine at Washington University, gave an informative talk on evaluation of "Clinical Laboratory Reports."

Following this, there was a short business session of the Staff of the Jefferson Memorial Hospital.

The following doctors were present: Drs. Karl McKinstry, Tom Donnell and George Hopson, DeSoto; R. W. Edwards, Cedar Hill; E. J. Senn, Herculaneum; B. Bolgar, Festus; and J. L. Mayfield, Carl Rice, R. H. Donnell, Francis Kozal and J. F. Rutledge, Crystal City.

John F. Rutledge, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held a joint dinner meeting with the Callaway and Montgomery County Medical Societies, Monday night, November 19, in the Pilot Lounge, Air Park Motel, Mexico.

The meeting was called to order by the President, Dr. Glen Kallenbach. The minutes and treasurer's report of the previous meeting were read and approved.

It was requested by the secretary that the doctors report the number of urine examinations done on the Diabetes Detection Program.

Dr. Ed S. Wallace introduced the guest speaker, W. Nicholas Sauer, M.D., of the Otolaryngology Department of St. Louis University, who discussed "Troublesome Ear, Nose and Throat Problems."

The following doctors were present: Leonard L. Davis, M.D., Thomas L. Dwyer, M.D., Kathryn C. Epple, M.D., Lawrence K. Epple, M.D., Ernest S. Gantt, M.D., William H. Jolly, M.D., Glen P. Kallenbach, M.D., Harold K. Lankford, Harry F. O'Brien, M.D., Ed S. Wallace, M.D., A. K. Baur, M.D., Tom Brewer, M.D., James E. Hill, M.D., E. C. Kepler, M.D., Harold G. Freund, M.D., W. Nicholas Sauer, M.D.

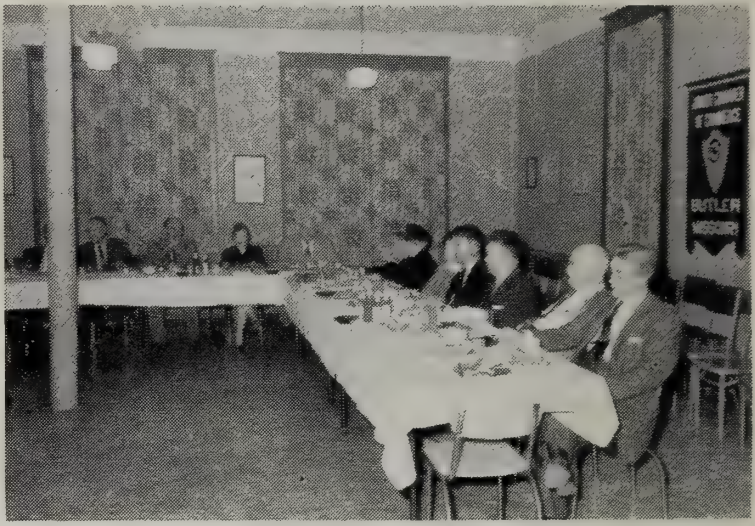
As there was no further business the meeting adjourned at 11:00 p.m.

Ed S. Wallace, M.D., *Secretary*

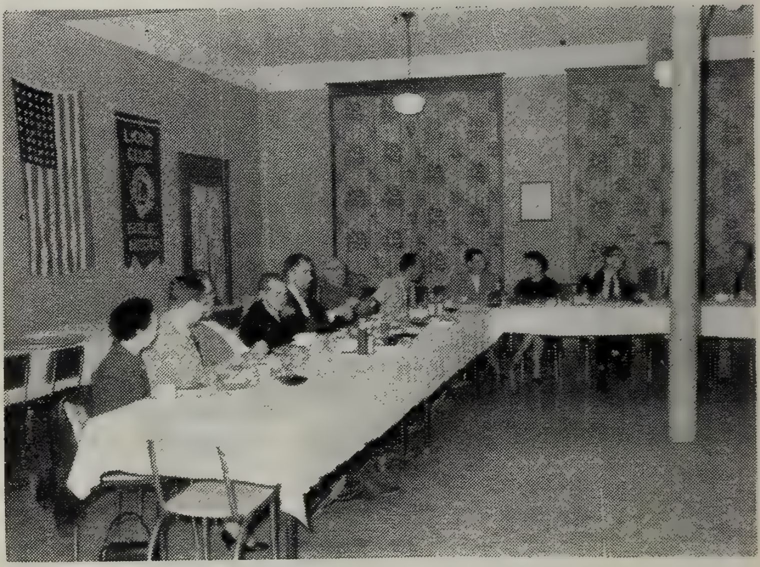
SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society



The Society met on November 8.



Dinner preceded the program.

Fred E. Simpson, M.D., Department of Pediatrics, University of Missouri Medical School, Columbia, spoke at a dinner meeting of the West Central Missouri Medical Society and its Woman's Auxiliary at Butler, Thursday evening, November 8. Dr. Simpson spoke on "The Child Who Coughs."

The evening festivities began with a social hour, dinner and then the scientific program.

Following Dr. Simpson's discussion, a short business session was held.

Approximately thirty people attended the meeting.

L. P. McCann, M.D., *Secretary*

Henry, Johnson, Pettis, Saline, Lafayette-Ray and Adjacent County Medical Societies

A joint dinner meeting of the Henry, Johnson, Pettis, Saline, Lafayette-Ray and adjacent county medical societies and the doctors' wives was held at the Country Club in Lexington on Wednesday night, November 14.

This was a gala affair beginning with social refreshments at 6:30 p.m. and dinner at 7:30 p.m.

The scientific program of the evening was under the auspices of the Missouri Academy of General Practice and presented G. Wilse Robinson, Jr., M.D., Kansas City, who spoke on "Psychotherapy in the Office of the Family Doctor." This was a most interesting and informative discussion.

Approximately fifty people were in attendance to enjoyed the evening's offering.

C. G. STAUFFACHER, M.D., *Councilor*

EIGHTH COUNCILOR DISTRICT

B. E. DETAR, JOPLIN, COUNCILOR

Ozarks Medical Society

The Ozarks Medical Society and its ladies met at the Bank Hotel in Aurora for a dinner meeting on Tuesday night, November 13.

A social hour and dinner preceded the formal program.

The scientific program was in the form of a panel discussion on "Selection of Cases for Cardiac Surgery" by Drs. Vallee Willman, Chester Lynxwiler and Donald W. Bussmann, all of St. Louis University Medical School.

There was considerable participation by the audience throughout the panel discussion. This scientific program was jointly sponsored by the Missouri Academy of General Practice and St. Louis University Medical School.

L. T. TAYLOR, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

A dinner meeting of the Mid-Missouri Medical Society and the doctors' wives was held at the Nelson Hotel in Lebanon on Thursday night, November 15.

Invitations were also extended to members of the Fort Leonard Wood Clinical Society.

The scientific program of the evening was presented by Dr. Glenn O. Turner and Dr. Andrew Hahn of Springfield. Dr. Turner spoke on "The Classification and Management of Hypertension" and Dr. Hahn discussed "The Management of Common Arrythmias."

The meeting was held a week earlier than usual in order to avoid the Thanksgiving rush.

M. K. UNDERWOOD, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Mineral Area County Medical Society

George J. L. Wulff, Jr., M.D., St. Louis, spoke before a meeting of the Mineral Area County Medical Society at State Hospital No. 4, Farmington, Thursday night, November 29.

Dr. Wulff spoke on the subject "Current Concepts of the Management of Breech Presentation."

This program was sponsored by the Missouri Academy of General Practice.

A. G. KARRAKER, M.D., *Secretary*

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From the Medical Schools

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Meetings

Dr. Lester R. Dragstedt, Thomas D. Jones distinguished service professor and chairman of the department of surgery at the University of Chicago, gave the eighth annual Major G. Seelig lecture December 5 at Washington University Medical School. He discussed "A New Concept of the Etiology of Gastric and Duodenal Ulcers." The lecture, sponsored by the medical school, honors the late Dr. Seelig, who was professor of clinical surgery at the medical school and director of research at Barnard Free Skin and Cancer Hospital for many years. Noted for contributions to knowledge of cancer in humans, he was chiefly responsible for the founding of People's Hospital. Dr. Seelig died in 1953.

Dr. Carl V. Moore, Busch professor of medicine and head of the department at Washington University School of Medicine, was the moderator for the afternoon session of a symposium on the recent advances in the pharmacology and clinical use of aspirin. The symposium was held November 28 and sponsored jointly by Monsanto Chemical Company and the St. Louis Medical Society.

Dr. Herman N. Eisen, professor of medicine (dermatology); and Dr. Clinton W. Lane, associate professor of clinical medicine (dermatology), participated in a meeting of the American Academy of Dermatology and Syphilology held December 8 to 13 in Chicago. Dr. Eisen discussed "Mechanisms Involved in Contact Dermatitis" as part of a symposium on the Physiology and Chemistry of the Skin, and Dr. Lane conducted a round table discussion. Dr. Herbert H. Gass, fellow in medicine (dermatology), and Dr. Robert Forbis, assistant in medicine (resident in dermatology) also attended the meeting.

Election, Appointment

Dr. Justin J. Cordonnier, professor of urology at Washington University School of Medicine, was named president-elect of the South Central Section of the American Urological Association at a recent meeting in Mexico City. He will take office in October, 1958. Other faculty members who participated in the meeting were Dr. Rogers Deakin, associate professor of clinical genitourinary surgery; Dr. Carl A. Wattenberg, assistant professor of clinical genitourinary surgery; and Dr. J. Byron Beare, instructor in clinical genitourinary surgery. A scientific paper by Dr. C. H. Nicolai, assistant professor of urology, was read by Dr. Cordonnier.

Dr. S. Richard Silverman, director of the Central Institute for the Deaf and professor of audiology at Washington University School of Medicine, has been appointed to the Advisory Council on Exceptional Children by Dr. John E. Ivey, director of the Southern Regional Education Board. The regional program for teachers of exceptional children is supported jointly by the SREB, the United Cerebral Palsy Association, the Association for the Aid of Crippled Children, and the National Association for Retarded Children through some of its state agencies.

Travel

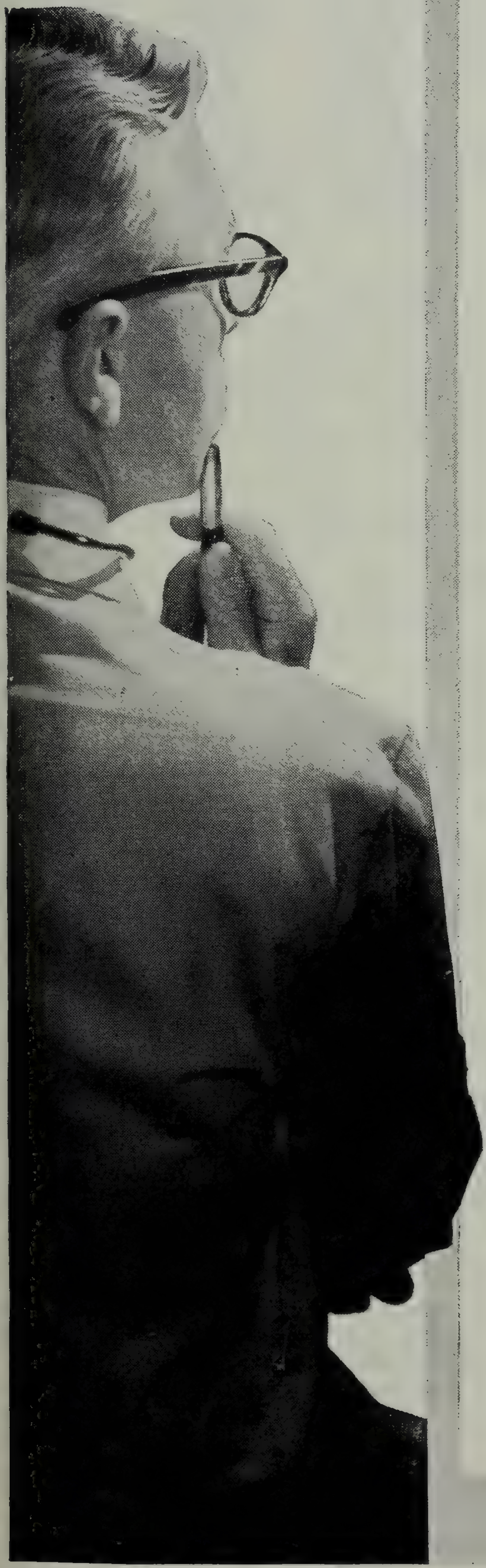
Dr. Lauren V. Ackerman, professor of surgical pathology and of pathology at Washington University School of Medicine, recently spent about a month giving medical lectures and visiting hospital laboratories and universities in the Philippine Islands, Japan, Hong Kong, Singapore, Indonesia, Thailand and India. The Philippine College of Surgeons invited Dr. Ackerman to speak to their group in Manila on various forms of cancer and their clinical and pathological behavior. While in the Islands from December 4 to 8 he also discussed problems in tumor pathology with a group of pathologists, lectured at medical schools and inspected the laboratories of an Army hospital at the request of the Surgeon General. Dr. Ackerman also visited hospitals in Tokyo, Hong Kong, Singapore and New Delhi. At the University of Indonesia he addressed members of the department of pathology on problems in tumor pathology. Included on his itinerary also was a visit to the University of Thailand. Dr. Ackerman returned to St. Louis December 20 after completing a round-the-world trip via Rome and Paris.

Visitors

A recent visitor in the department of surgery was Dr. Fritz Albert, professor and director of the laboratory of experimental surgery at the University of Liege, Belgium. He was accompanied by two of his assistants, Drs. Georges Lejeune and Jean Blavier. The medical center was one of several they visited to study advances in cardiovascular surgery and tissue and organ transplantation. Another recent visitor in the department of surgery was Dr. Philip Allison, Nuffield professor of surgery at the University of Oxford, England. Dr. Allison is spending several months in this country studying advances in surgery, the ways in which departments of experimental surgery are organized and equipped, and medical education. He plans to return to England in March.

Resignation

Dr. Robert J. Glaser, associate professor of medicine and associate dean of Washington University School of Medicine, has resigned effective next January 31 to become dean and professor of medicine at the University of Colorado School of Medicine, Denver. In addition to administrative duties in his new post Dr. Glaser will continue his research on streptococcal infections and rheumatic fever and participate in the teaching program of the department of internal medicine. Dr. Glaser was assistant dean of Washington University School of Medicine in 1947 and from 1953 to 1955 when he became associate dean. He also has served as chief of the rheumatic fever clinic at Washington University and as a consultant in rheumatic disease for the Division of Services for Crippled Children at the University of Illinois. For six years he was a consultant in rheumatic fever for the State of Missouri Crippled Children's Service. Last spring Dr. Glaser was one of two representatives invited by the Rockefeller Foundation to study medical education in Latin America and spent six weeks visiting medical schools in Mexico, Central and South America.



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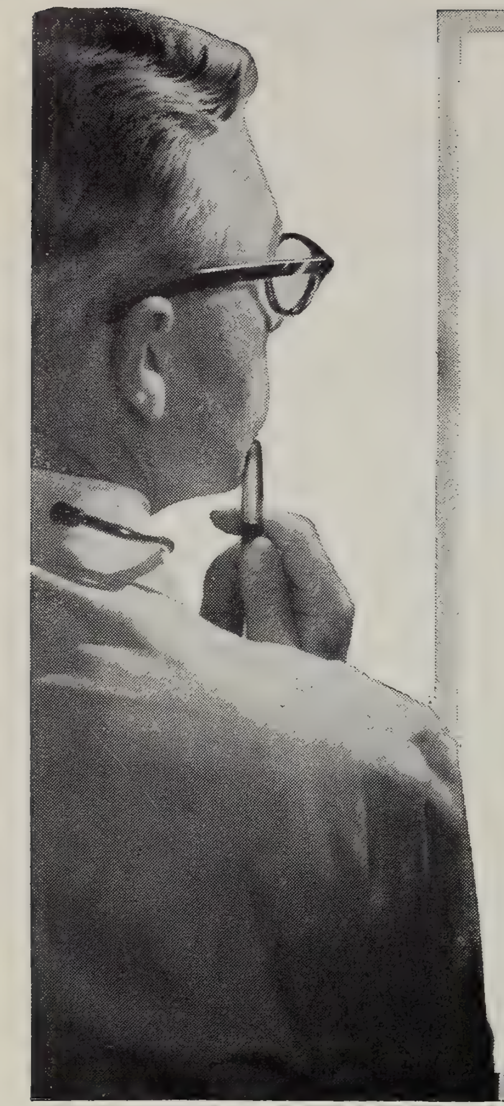

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UNIVERSITY OF MISSOURI

Trips and Talks

Dean Roscoe L. Pullen spoke to the Sorosis Club in Sedalia, Missouri, on October 22, 1956, using as his subject: "Developments of the University of Missouri Medical Center."

On October 24, 1956, Dean Pullen presided at the morning session of the 8th Annual Assembly, Missouri Academy of General Practice at Jefferson City.

Dean Pullen and Dr. Frank B. Engley, Jr., Assistant Dean, attended a meeting of the Association of American Medical Colleges in Colorado Springs, Colorado, November 11 to 14, 1956. The meeting was attended by some 400 deans and assistant deans throughout the United States and Canada.

Dr. Frank B. Engley, Jr., professor and chairman, Department of Microbiology, and Dr. Herbert S. Goldberg, assistant professor, Department of Microbiology, attended the Annual Symposium on Antibiotics sponsored by the Food and Drug Administration in Washington, D. C., on October 16 to 20, 1956. The meetings were attended by approximately 400 professional participants. Dr. Engley presented a paper entitled: "Comparative Antibiotic Resistance of Air-Borne Micro-organisms Isolated From Hospital Area," and Dr. Goldberg presented a paper entitled "Antibiotic Sensitivity of Micrococcus Pyogenes Isolated From Nursing Students Before and During Hospital Contact. A Preliminary Report." While in Washington, Drs. Engley and Goldberg visited the Walter Reed Army Research Center, Air Force Institute of Pathology.

Dr. John H. Killough, associate professor, Department of Medicine, spoke to members of the Boone County Dental Society, Columbia, on November 15, 1956. His topic was "Subacute Bacterial Endocarditis."

On November 16 and 17, Dr. Killough attended a meeting sponsored by the Upjohn Company in Kalamazoo, Michigan, where he spoke on "Combination Antibiotic Therapy of Brucellosis."

Dr. Thomas W. Burns, assistant professor, Department of Medicine, spoke to the Registered Practical Nurses Association at Boone County Hospital, Columbia, on October 9, 1956. Approximately 50 practical nurses heard Dr. Burns speak on "Nursing Problems in Metabolic and Endocrine Disorders."

On October 15, Dr. Burns appeared on Missouri Forum, KOMU-TV, Columbia, where he spoke on "The Suez Crisis" to the viewing audience.

Dr. Burns spoke again on October 18, under the sponsorship of the Student Union Forum, University of Missouri, on "The United States in the Suez Crisis." There were 200 present for this meeting.

On November 12, Dr. Burns was guest speaker to the Missouri Methodist Mens Association in Columbia, where he spoke on "Egypt in the Middle Eastern Crisis." There were approximately 113 people in attendance.

From November 6 to 11, 1956, Dr. Clarence D. Davis, professor, Department of Obstetrics-Gynecology, attended a meeting in Chicago sponsored by the American College of Obstetrics and Gynecology, Committee on Maternal Welfare. The meetings were attended by approximately 3000 members of the Society.

On November 11, Dr. Davis was moderator for the morning session of the Greater Kansas City Chapter,

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luding those caused by antibiotic-resistant
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. Therapeutic, *bactericidal* blood levels are
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apsule q.i.d. for a child weighing 50 lbs.).

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—for these clinically important infections: tonsillitis; pharyngitis; pneumonia; otitis media; cervical lymphadenitis; streptococcal sore throat; infected tooth sockets; Vincent's infection; acne and superficial skin infections; impetigo; boils, furuncles and carbuncles; lung abscess; bronchitis; mastitis; osteomyelitis; wound infections; postoperative wound infections and infected lacerations; staphylococcal enteritis, staphylococcal diarrhea of the newborn; peritonitis (caused by susceptible organisms); pelvic inflammatory disease; gonorrhea; gonococcal arthritis; urethritis; scarlet fever; erysipelas.

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Missouri Academy of General Practice. There were 225 attending the session.

Dr. George J. Fuchs, assistant professor, Department of Obstetrics-Gynecology, was a discussant of a paper presented by Dr. James C. Walsh on "Thyroid Disease" at the Southern Medical Association meeting, November 11 to 15, in Washington, D. C.

Dr. Gwilym S. Lodwick, professor and chairman, Department of Radiology, presented a paper at the Eighth Annual Assembly of the Missouri Academy of General Practice in Jefferson City on October 25, 1956. He chose as his subject: "Patterns of Bone Destruction and Bone Proliferation Related to Aggressiveness of Neoplasm Growing in Bone."

Dr. Lodwick, Dr. Dahlin, pathologist, Mayo Clinic, and Dr. Johnson, Ellis Fischel State Cancer Hospital, Columbia, were guest speakers at a meeting of cancer specialists at the Ellis Fischel State Cancer Hospital on November 18, 1956. The title of the paper presented was "Destructive Changes in Bone and Their Meaning in Terms of 5-Year Survival."

Dr. Joseph E. Flynn, professor and chairman, Department of Pathology, presided at the Clinical Pathologic Conference held on Wednesday, October 24, at the Eighth Annual Assembly of the Missouri Academy of General Practice in Jefferson City.

Dr. Milton D. Overholser, Professor and Chairman, Department of Anatomy, attended the Association of American Medical Colleges meeting in Colorado Springs, Colorado, November 7 to 10. The appraisal of applicants to medical schools was the topic for discussion in the meetings attended by Dr. Overholser.

On November 11, Dr. W. A. Sodeman, professor and chairman, Department of Medicine, was guest speaker at the capping ceremony for the University of Missouri School of Nursing in Jesse Hall, University of Missouri campus. He spoke to an audience of approximately 1000 guests on "Nursing in Modern Society."

On November 15, Dr. Sodeman spoke in New Orleans to the American Society of Tropical Medicine and Hygiene. His subject was "An Evaluation of the Intravenous Use of Anti-Malarial Drugs; With Reports of 87 Intravenous Injections of Quinacrine and 76 of Chloroquine Solution." The meeting was attended by 300 professional people.

On October 16, Dr. Thomas D. Luckey, professor and chairman, Department of Biochemistry, Dr. Owen J. Koeppe, assistant professor and Dr. John M. Franz, instructor, both of the Department of Biochemistry, attended a Biochemical Seminar at the University of Kansas in Kansas City, Missouri.

Dr. Frank B. Engley, Jr., professor and chairman, Department of Microbiology, Drs. Herbert S. Goldberg, Robert Keller, and Michael H. Ivey, assistant professors, Department of Microbiology, attended the meeting of the Eastern Missouri Branch of the Society of American Bacteriologists at the Wald Medical Center, St. Louis, on October 24.

Dr. Michael H. Ivey, assistant professor, Department of Microbiology, was in New Orleans, Louisiana, October 31 to November 3, attending the meeting of the American Society of Tropical Medicine and Hygiene.

On October 28, Dr. Joseph E. Flynn, professor and chairman, Department of Pathology, was in New York City attending a committee meeting of the College of American Pathologists drawing up plans for the Post Graduate Pathology Teaching Institute to be held in New Orleans.

On October 21, Dr. Eugene T. Standley, assistant professor, Department of Pathology, presented a paper on "Paper Electrophoresis" to the Missouri Society of Medical Technologists held in Columbia. The meetings were attended by approximately 50 participants.

Dr. C. K. Leeper, assistant professor, Department of Pathology, participated in a panel discussion "Report on the 3rd International Cancer Conference in Detroit, Michigan, June 3, 4, and 5." At the Divisional Meeting of the American Cancer Society, Missouri State meeting, on October 14, 1956, other discussants were Dr. N. D. Rodes, Columbia, and Dr. T. Lillie, Kansas City.

Dr. Hugh E. Stephenson, Jr., associate professor and chairman, Department of Surgery, attended the annual meeting of the John and Mary R. Markle Foundation Scholars on October 25, 26 and 27 at Montebello, Quebec, Canada. In addition, Dr. Stephenson visited the Departments of Surgery at the University of North Carolina at Chapel Hill and Duke University at Durham, North Carolina.

Members of the Department of Surgery who attended the American College of Surgeons meeting in San Francisco October 8 to 12 were Drs. Hugh E. Stephenson, Grafton Smith, William J. Stewart, Horace Thomas, James Cope and Glen McElroy.

Dr. Robert L. Jackson, professor and chairman, Department of Pediatrics, Dr. Clement E. Brooke, assistant professor, Department of Pediatrics, and Dr. Ray Hepner, associate professor, attended the meeting of the Central Society for Clinical Research in Chicago, Illinois, November 8 to 11. Dr. Jackson introduced the speaker for the meetings which were attended by some 600 to 700 medical investigators, mostly academic. Dr. Hepner presented a paper entitled: "Retrolental Fibroplasia."

Dr. Clement E. Brooke, assistant professor, Department of Pediatrics, and Dr. Helen M. Waiches, instructor, Department of Pediatrics, participated in a demonstration of a case conference by a team from the Child Development Center, at a Staff Training Institute for County Welfare Directors held in the Memorial Student Union, Columbia, on November 14 to 16. The meeting was sponsored by the School of Social Work in cooperation with the State Division of Welfare.

Dr. Ralph Bowers, chief surgeon, Kennedy Veterans Hospital, Memphis, Tennessee, spoke at the Sectional Meeting of the American College of Surgeons held in the Auditorium of the University of Missouri Medical Center on November 15. His subjects were: "The Management of Bleeding Peptic Ulcer," and "Some Remaining Controversies in Biliary Tract Surgery."

On Tuesday evening, October 30, 1956, under the sponsorship of the Student Medical Association Chapter and the faculty of the University of Missouri School of Medicine, a meeting was held in the Medical Center Auditorium for all interested medical students. The program was presented by Colonel Donald L. Ferris, from Scott Air Force Base, Illinois, representing the Air Force; Captain Kenneth W. Schenck from Great Lakes, Illinois, representing the Navy, and Major E. S. Prange, St. Louis, Missouri, representing the Army. The purpose of the meeting was to acquaint the medical students at the University of Missouri School of Medicine with internships and residencies available to them upon graduation by the Armed Forces.

Under the sponsorship of the Postgraduate Education Committee at the University of Missouri School of Medicine, Dr. John Nokes of the Department of Obstetrics-Gynecology at the University of Virginia

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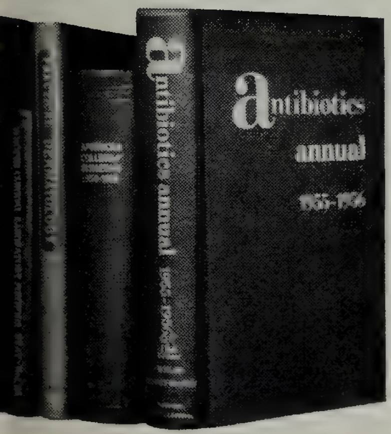

1. Romansky, M.J., et al., Antibiotics Annual 1955-1956, p. 48,
2. Waddington, W. S., Maple, F. C., and Kirby, W. M. M., A.M.A. Archives of Internal Medicine, 1954, p. 556.

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School of Medicine spoke to the faculty and students at the University of Missouri School of Medicine on October 25, using as his subject: "Why the Induction of Labor."

The first Postgraduate Medical Education Session at the University of Missouri School of Medicine was held Thursday, November 8, at the Medical Center. A panel discussion was presented by Dr. Hugh E. Stephenson, Jr., associate professor and chairman, Department of Surgery, and Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology, entitled: "Roentgen Evaluation of Gastro-Intestinal Bleeding." Following this presentation, a Correlative Clinic was given by the Department of Surgery. The meetings were attended by interested doctors within a seventy-five mile radius of the Medical Center, members of the faculty and staff of the School of Medicine, and third and fourth year medical students.

Dedication

The University of Missouri realized a dream of almost half a century on November 10, 1956, with the dedication of its new $13,600,000 Medical Center as a contribution to the state's needs.

An impressive ceremony was witnessed by more than 500 persons seated in front of the 441 bed teaching hospital, one of the units of the Center which also includes a Medical Science Building and a nurses' home.

Powell B. McHaney of St. Louis, a member of the Board of Curators of the University, and Dean Roscoe L. Pullen of the School of Medicine expressed the aims of this new undertaking, making a four year medical course at Columbia available for the first time since 1910.

Those attending the dedication included prominent figures in the medical profession, members of the legislature, representatives of the state government, representatives of other medical schools, Medical Advisory Committee, University of Missouri alumni and friends of the University and the full membership of the Board of Curators.

The Dedication Program was presided over by Dr. Elmer Ellis, President of the University of Missouri, and music for this auspicious occasion was presented by the University of Missouri Band. Following the introduction of distinguished guests, Dr. Ellis introduced the Honorable Powell B. McHaney who spoke on "Our Continuing Job," and Dr. Roscoe L. Pullen, Dean, University of Missouri School of Medicine, who used as his subject: "Potentialities of the University of Missouri Medical Center."

Throughout the day, guided tours under the direction of the School of Nursing and the third and fourth year medical students, were made available to guests who wished to view the new Medical Center facilities, and following the Dedication Exercises, a special luncheon was given in the new Cafeteria for invited guests.

SAINT LOUIS UNIVERSITY

Honors

Dr. Albert Kuntz, professor of anatomy and director of the department, was the recipient of the Alumni Merit Award, sponsored by the medical alumni at St. Louis University's Annual Founder's Day Ceremonies held Nov. 18. Dr. Kuntz has been a teacher and researcher at the University for the last forty-three years, and departmental director for the last twenty-six years. An outstanding scholar on the autonomic nervous system, both in this country and abroad, Dr. Kuntz has authored and co-authored more than 200 scientific papers, and has prepared annually a review of current publications relative to the anatomy, physiology and clinical aspects of the autonomic nervous system. He has also written many encyclopedic summaries in various publications, and is the author of a textbook titled "The Autonomic System."

Doctors honored for their twenty-five years of service to the Medical School at convocation ceremonies were: Drs. Ralph Berg, Thomas C. Birdsall, Edward H. Bowdern, Kermit Christensen, Leslie C. Drews, Edwin G. Eigel, Henry G. Farris, Joseph A. Hardy, Jr., Robert F. Hickey, Victor E. Hrdlicka, Grey Jones, Bernhardt W. Klippel, Fred A. Kramer, Joseph McNearney, Warren G. Marston, William H. Norton, Cleitus A. Presnell, Louis A. Reuter, Edmond F. Sassin, Newell W. Schlueter, Daniel L. Sexton, Elmer E. Sexton, Sidney Thayer, James P. Wade, Marion A. Webb and Theodore S. Zahorsky. Dr. Karl Stern, psychiatrist-in-chief, Institut Albert Prevost, Montreal, Canada was the guest speaker at the Convocation.

Lectures and Travel

Dr. James W. Colbert, Jr., Dean, was a discussant at the three day Institute on Pre-Medical Education held Nov. 8 to 10 during the 67th Annual Meeting of the Association of American Medical Colleges. He also served as Chairman of the Committee on Continuation Education, which met Nov. 11 and 12. The Conference was held at The Broadmoor at Colorado Springs, Colorado.

Dr. Ralph A. Kinsella, Sr., director emeritus of the department of internal medicine, served as moderator of a medical research symposium on aspirin held at the Park Plaza Hotel Nov. 28. The symposium was sponsored by the Monsanto Chemical Company and the St. Louis Medical Society.

Drs. Donald W. Bussman, senior instructor in internal medicine, J. Gerard Mudd, assistant professor of internal medicine, and Vallee L. Willman, research fellow, appeared before the Ozark Medical Society in Aurora, Mo., Nov. 13. They presented a program on "Selection of Cases for Cardiac Surgery."

Two papers were presented before the first faculty seminar of the year held at Firmin Desloge Hospital Nov. 29. Dr. Norman Melechen, who recently joined the faculty of the Department of Microbiology from the Carnegie Institution of Washington, Department of Genetics, Cold Spring Harbor, Long Island, discussed "Chloromycetin in Studies of Genetics of Bacterial Viruses." Dr. Henry Oppenheimer, director of the department program for the study of diabetes, discussed "The Present Status of the Oral Hypoglycemic Agents."

Dr. George E. Thoma, senior instructor in internal medicine and director, radioisotope laboratories, Firmin Desloge Hospital, addressed Alpha Delta Theta, the national professional sorority of medical technologists which held its annual convention in St. Louis Nov. 16 to 18. Dr. Thoma spoke on "Clinical Uses of Radioisotopes." Dr. John P. Pfaff, Jr., senior instructor in pathology, delivered a welcoming address to the group at the Coronado Hotel, and Dr. Raymond O. Muether, associate professor of internal medicine, served as master-of-ceremonies at the sorority's banquet held at Stan Musial and Biggie's Restaurant.

Three members of the pathology department attended the Workshop on Clinical Chemistry spon-

(Continued on page 82)

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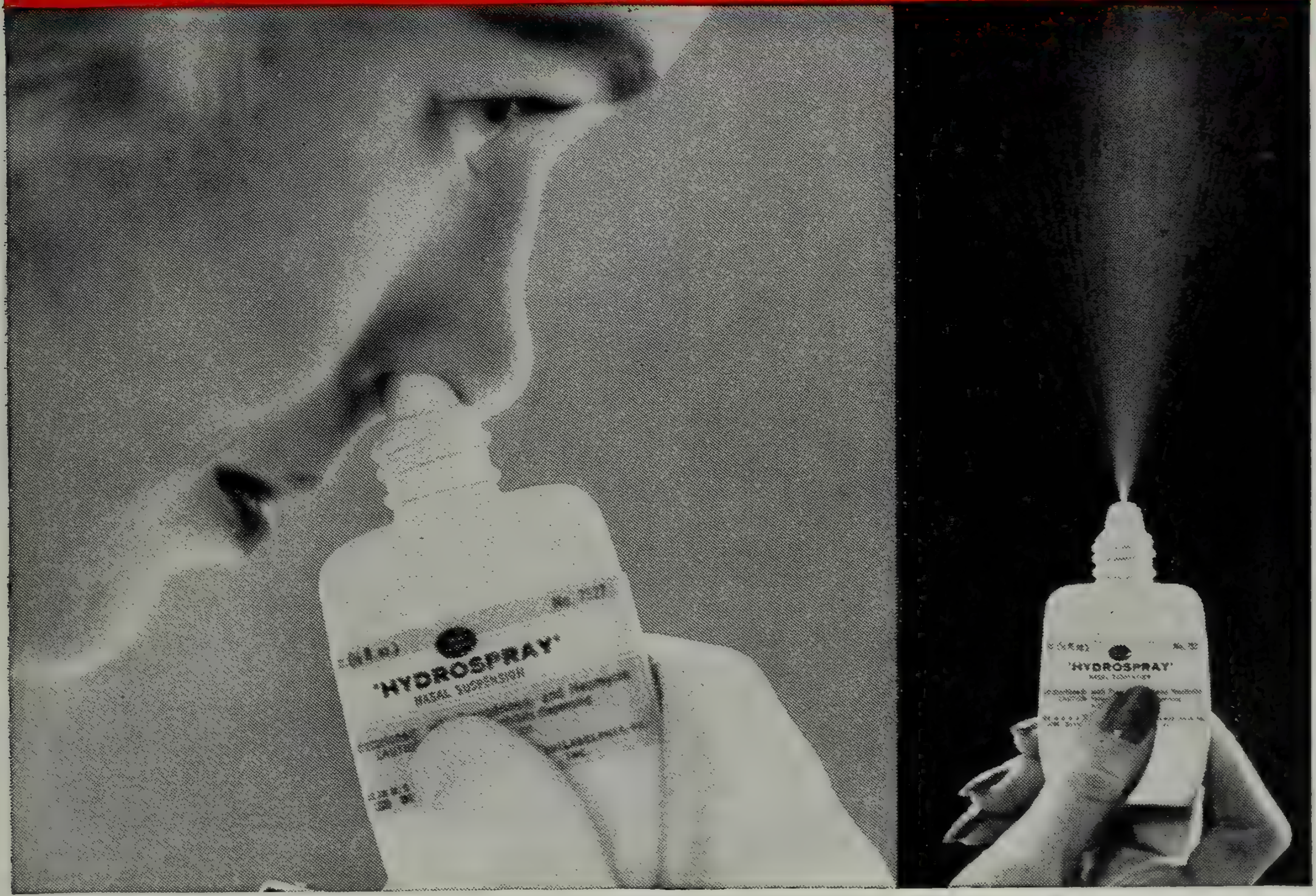

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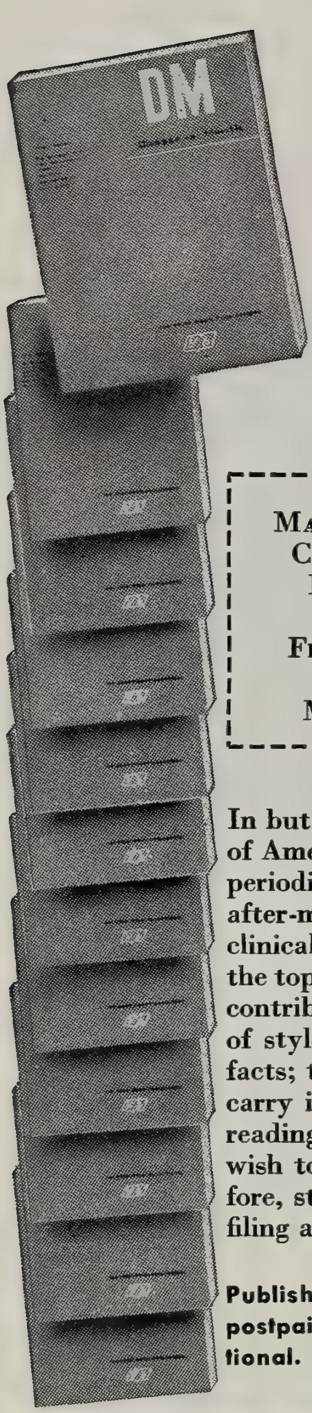
REFERENCE: 1. Silcox, L. E., *A.M.A. Arch. Otolaryng.* **60**:431, Oct. 1954.



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Correspondence

MEDICARE

To the Editor:

It has been brought to my attention that some of the persons with whom we have negotiated contracts under the Dependents' Medical Care Act are of the opinion that the Program is not one of full service coverage. This concept may have arisen because the Act itself is not specific regarding this matter. It may also have arisen either because certain fees are stipulated to be paid by the patient or because the contract allows for unusual or difficult cases an additional fee payable by the Government to the physician if he makes proper request under a special report.

Upon inquiry, I have been assured that members of the negotiating teams have not indicated the contract is other than for full coverage. Further, no instance has been found where any member of the negotiating teams has, in any way, intimated that the Dependents' Medical Care Program is not one of full coverage.

In order to clarify this matter and to avoid any improper interpretation of the Dependents' Medical Care Act with regard to payments to physicians under a Schedule of Allowances as provided in our contracts, the position of the Department of Defense as is being carried out by my office is submitted for your guidance:

a. It is intended that civilian medical care authorized under Public Law 569, 84th Congress, will be on a basis comparable to that provided in uniformed services medical facilities. Except for specified amounts to be paid by the patient, the services which are provided under the law will be furnished by physicians participating in the program who will receive payment in full from the Government in accordance with the published Schedule of Allowances or under a special report as the case may be. In most instances, this means that the physician participating in the program will receive payment for his usual charge or the amount established in the local schedule of allowances, whichever is less.

b. Section 5, paragraph 507b, of the Joint Directive promulgated by the Secretary of Defense and the Secretary of Health, Education, and Welfare provides as follows: "The Executive Agent (Secretary of the Army) shall be responsible within the continental United States, Alaska, Hawaii, and Puerto Rico for the following:

(1) Preparation of the terms and placement of the contract or contracts to be established to include but not limited to:
   a. Local schedules of allowances to be used *in full payment* of bills presented by physicians and surgeons." (Italics added.)

A copy of this Joint Directive is an integral part of every contract and there is no question that the contract provides for full service coverage.

c. There may be unusual instances in which the physician will believe that an allowance greater than that prescribed in the local schedule of allowances is justified. In such cases, the physician should look to the Government for additional payment, and not to the patient. Provision is made for the physician to submit a special report to his state medical society and in turn to the Government as a request for additional payment. Such additional payment will be made

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upon approval by the medical society's review board and by the Government's contracting officer.

Your assistance in providing physicians in your state with this information will be helpful to all concerned. We believe that a clear understanding of this matter before the Dependents' Medical Care Program goes into effect is essential and will help to prevent problems or criticisms which otherwise might result from a lack of understanding on the part of physicians participating in the program.

Your cooperation and assistance in implementing the Dependents' Medical Care Program is most gratifying and with your continued help I believe the program will be most successful.

Sincerely,
Paul I. Robinson
Major General, M.C.
Executive Director
Office for Dependents' Medical Care

DEATHS

Kenney, Verna Elbert, M.D., Joplin, a graduate of the Kansas City College of Medicine and Surgery, 1921; member of the Jasper County Medical Society; aged 62; died November 6.

Collier, Alfred, M.D., Chillicothe, a graduate of the University of Louisville School of Medicine, 1910; honor member of the Grand River Medical Society; aged 70; died November 9.

Bruton, Tyrrel S., M.D., Springfield, a graduate of the Barnes Medical College, 1900; honor member of the Greene County Medical Society; aged 88; died November 7.

Simpson, Morris B., M.D., Kansas City, a graduate of the University Medical College of Kansas City, 1913; Past President of the Missouri State Medical Association in 1948; member of the Jackson County Medical Society; aged 67; died November 10.

Rolens, L. E., M.D., Granby, a graduate of the St. Louis College of Physicians and Surgeons, 1905; honor member of the Ozarks County Medical Society; aged 73; died November 12.

McComas, Arthur R., M.D., Sturgeon, a graduate of the Beaumont Hospital Medical College, 1890; Past President of the Missouri State Medical Association in 1923, Chairman of the Council from 1916 to 1922. Delegate to the American Medical Association; member of the Boone County Medical Society; aged 88; died November 14.

Williamson, William H., M.D., Mokane, a graduate of the Kentucky School of Medicine, 1893; honor member of the Callaway County Medical Society; aged 89; died November 16.

Holbrook, Walter F., M.D., Kansas City, a graduate of the University of Louisville School of Medicine, 1915; honor member of the Jackson County Medical Society; aged 72; died November 24.

Budke, Robert J., M.D., St. Charles, a graduate of Washington University School of Medicine, 1935; member of the Lincoln-St. Charles County Medical Society; aged 48; died November 26.

TUBERCULOSIS ABSTRACT

Issued by the National Tuberculosis Association.
A statement by James E. Perkins, M.D., Managing Director of National Tuberculosis Association.

IMPORTANCE OF CHEST X-RAYS IN TOTAL RADIATION EXPOSURE

The report of a survey by six committees of the National Academy of Sciences on radiation is of particular concern to tuberculosis workers and physicians because of the emphasis which has been put upon the chest x-ray.

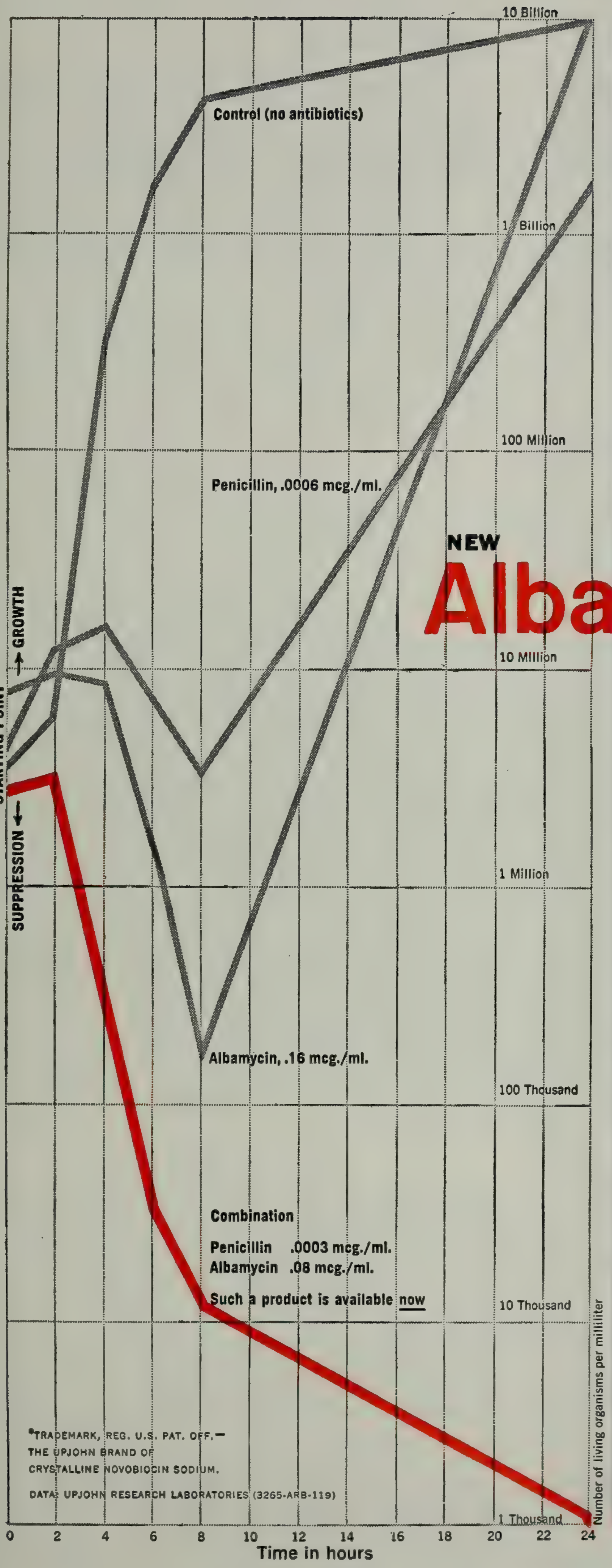
The survey was made primarily to evaluate the effect on the population of the testing of nuclear weapons and an estimate of future radiation likely to occur from the extension of peaceful uses of atomic energy. The use of radiation in medical practice inevitably came into the discussion. The point was made that all radiation is harmful from a genetic point of view, inevitably producing a number of injuries to the reproductive cells, which in turn results in certain mutations. The effect is cumulative and such injury may not show up for generations in the future. If such radiation is not controlled carefully, the inevitable effect, it is said, will be an increase in the death rate, a decrease in the birth rate, and ultimate eradication of the human species.

From a long range genetic standpoint, a small exposure to radiation of the general population is just as bad as a high degree of radiation of a relatively small group of people. The important thing is the radiation of the reproductive organs. The local radiation of a part of the body, remote from the gonadal region, such as a dental x-ray, will result in a certain amount of radiation of the gonads themselves. The report states that the average dental x-ray results in a direct exposure of the face of about 5 r (r = "roentgen," a unit of radiation) and of this exposure, .005 r reach the gonads.

There is some radiation that one can do nothing about; namely, the radiation from radio-active minerals and cosmic rays from outer space. With this so-called background radiation in mind, the scientists suggest that, in addition, man made radiation of the general population should be kept below a total of 10 r's from conception to age 30, so far as radiation of the gonads is concerned. Those in occupations which necessitate greater exposure than this should keep such exposure below 50 r's during the first thirty years of life, and not to exceed another 50 r's between the ages 30 and 40. (Nine tenths of children are born to parents under 40 years of age. Radiation of persons beyond the child bearing age is obviously less serious).

From the standpoint of mass use of chest x-rays for screening to detect the presence of active tuberculosis, the 10 r maximum limit obviously must be used, rather than the 50 r limit. The scientists point out that even a 10 r general exposure from man made sources over the first thirty years of life will exert a certain toll in terms of hereditary defects, but apparently it is felt that this exposure will not be serious and is not unreasonable.

One can assume then that one has in the bank at conception 10 r's of x-rays or gamma rays. The object is to try to spend as little of these 10 r's as possible, doing so only when the benefits clearly outweigh the possible genetic injury which may result. This balancing of the assets and debits of a given



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x-ray exposure is an extremely difficult and rather nebulous thing, but it does make it clear that any x-ray program that yields no important practical results (such as using x-rays to check on the fitting of shoes) should be stopped.

To assist in the evaluation of a chest x-ray program, it is first necessary to know how much radiation of gonads results from a chest x-ray. It is evident that scientists do not feel that such exposure is entirely negligible.

A study at the Brookhaven National Laboratory shows the total dose received as a result of x-raying various anatomic structures under varying conditions. According to the Brookhaven figures the exposure incident to the conventional chest x-ray is 0.05 r. This is the total dosage received by the part being x-rayed. It is not the dosage received by the gonads through stray radiation and scattering inside the body. From the genetic point of view, the important thing is not the total dosage but how much reaches the gonads.

Dr. W. Edward Chamberlain, Professor of Radiology, Temple University Medical School, Philadelphia, presented certain data at the last meeting of the Subcommittee on Tuberculosis of the National Research Council concerning the amount and seriousness of gonadal radiation resulting from various chest x-ray procedures. Dr. Chamberlain's calculations are as follows: Approximate radiation received by the gonads from a single: (1) conventional chest film (14″ by 17″), 0.00025 r; (2) regular photofluorograph, 0.005 r, (3) photofluorograph using the new mirror optic system 0.0015 r. On the basis of dosages given by the Brookhaven National Laboratory, the radiation reaching the gonads from a conventional chest x-ray or regular photofluorograph is apparently 1/200th of the total dosage received.

It is obvious from these figures that if the 10 r gonadal radiation were to be used up entirely by photofluorographs of the usual type, this would take some 2,000 such photofluorographic chest films during the first thirty years of life. Even if individuals followed the usual advice of an annual chest x-ray from the age of 15 onward, this would mean only fifteen photofluorographs by age 30. Fifteen annual PF's would use up less than 1 per cent of the 10 r's (actually .075 r) and would seem to make it clear that there is a large safety factor even in the use of the regular photofluorographs.

According to our data, the highest exposure chest x-ray gives no more gonadal radiation than the dental x-ray exposure. Fluoroscopy itself, of course, is quite another matter and gives a very high dose.

CONCLUSIONS

From this certain tentative conclusions seem indicated.

1. Fluoroscopy should not be used for screening purposes. (It may be necessary, of course, for diagnostic purposes.)
2. Any x-ray program yielding data of no significance should be discontinued. (A given type of x-ray program may be justified in a certain population group and unjustified in another.)
3. In very few communities, if any, in the United States would routine chest x-ray screening of the general population under the age of 15 be justified.
4. From the genetic standpoint, chest x-rays of older people who have completed their families are of no importance and, furthermore, this is the group with the higher rates of prevalence of tuberculosis.
5. The standard 14″ by 17″ chest x-ray film gives such a low dosage of gonadal radiation it is essentially negligible at any age.
6. The use of the new photofluorograph camera using the mirror type of optics results in less than a third as much gonadal radiation as the regular photofluorograph.
7. Even the regular photofluorograph causes such a low dose of gonadal radiation that its use for tuberculosis screening purposes in individuals who have not completed their families is justified if these individuals are in population groups with a considerable prevalence of tuberculosis.
8. Determination of what groups should be continued to be screened by chest x-rays must be made locally upon the advice of the physicians guiding the program, such as the Trudeau Society or medical advisory committee.

From the Medical Schools

(Continued from page 76)

sored by the Catholic Hospital Association the latter part of November. They were Dr. George E. Gantner, Jr., assistant in pathology, Dr. Thomas L. Tombridge, assistant in pathology and Dr. Eugene F. Tucker, senior instructor in pathology.

Thirty-five physicians throughout the state of Missouri attended a Cardiac Auscultation course presented Nov. 28 and 29 at Firmin Desloge and Cardinal Glennon hospitals. The course was under the direction of Drs. James G. Janney, Jr., associate professor of clinical medicine, and Dr. Donald W. Bussman, senior instructor in internal medicine.

Dr. S. R. Venugopala Reddy, a St. Louis Heart Association fellow, will attend a postgraduate course in electrocardiography in Salt Lake City Dec. 3 to 8 given by the American College of Physicians. Dr. Reddy was awarded his M.D. Degree at Mycore State University in India, and completed a two year residency in medicine at City Hospital.

Dr. Otokar Machek, instructor in orthopedic surgery, attended a meeting of the Academy of Cerebral Palsy held at the Congress Hotel in Chicago Nov. 16 to 18.

Microbiology Visitors

Dr. Ernest Bueding, of the department of pharmacology, Louisiana State University School of Medicine, New Orleans, Louisiana, spoke before a seminar sponsored by the department of microbiology Nov. 8. His subject was "Relationship Between a Biochemical Effect and the Chemotherapeutic Action of Organic Antimonials on Schistosomes."

Dr. Donald McLean, a staff member of the Walter and Eliza Hall Institute of Medical Research and the University of Melbourne School of Medicine, Melbourne, Australia, visited the Microbiology Dept. November 30. He delivered a lecture before sophomore medical students and the medical faculty on "Australian Experiences in the Attempted Elimination of Wild Rabbits by Myxoma Virus."

Other visitors to the department during November included Drs. Renato Dulbecco and J. Bertani of the California Institute of Technology.

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References (1) Altemeier, W. A.; Culbertson, W. R.; Sherman, R.; Cole, W.; Elstun, W., & Fultz, C. T.: *J.A.M.A.* 157:305 (Jan. 22) 1955. (2) Austrian, R.: *New York J. Med.* 55:2475 (Sept. 1) 1955. (3) Murphy, F. D., & Waisbren, B. A., *in* Murphy, F. D.: Medical Emergencies: Diagnosis and Treatment, ed. 5, Philadelphia, F. A. Davis Company, 1955, p. 557. (4) Weil, A. J., & Stempel, B.: *Antibiotic Med.* 1:319, 1955. (5) Jones, C. P.; Carter, B.; Thomas, W. L., & Creadick, R. N.: *Obst. & Gynec.* 5:365, 1955. (6) Kass, E. H.: *Am. J. Med.* 18:764, 1955. (7) Tebrock, H. E., & Young, W. N.: *New York J. Med.* 55:1159 (Apr. 15) 1955.

graph is adapted
Altemeier, Cul-
on, Sherman, Cole,
n, & Fultz.[1]

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Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Curiosa et Trivia

William B. McCunniff, M.D.

Almost three hundred years before thyroid gland substance was used to treat thyroid deficiency, Giulio Casserius in 1601, described the gland and concluded that it had no excretory duct.

The University Museum in Philadelphia has a prescription written about 2100 B. C. The ℞ on a small clay tablet is inscribed in the cuneiform script in the Sumerian language.

On his bachelor of science diploma, Louis Pasteur received a final grade of "mediocre" in chemistry.

Total services rendered by the International Ladies' Garment Workers' Union Health Center in 1913 were 1,234. In depression years 1932-33, the yearly average was about eighteen thousand. But more recently, in 1952, the health centers rendered 565,000 medical services.

A trial dozen leeches may be purchased for $1 at Medicinal Leech, Box 47, Long Island City 1, New York.

Capsule Clinics

I. A. Wien, M.D.

- It is probably true that a patient operated on for carcinoma of the colon or rectum, in whom the lymph nodes in the resected specimen are negative, has better than a 50 per cent chance for a permanent cure. Surgical Practice of the Lahey Clinic, W. B. Saunders Co., Philadelphia, 1951.
- Patients following total gastrectomy are able to maintain a reasonable state of health, eat satisfactorily, and carry on a comfortable existence. Surgical Practice of the Lahey Clinic, W. B. Saunders Co., Philadelphia, 1951.
- Carcinoma in situ may be described as carcinoma in its normal or original location or a condition in which malignant cells and their progeny are found in or near positions occupied by their ancestors. Dissick, J.: J. Internat. Col. Surg. 22 (October) 1954.
- Lesions of the small intestine form 0.095 per cent of all malignant lesions of the entire gastrointestinal tract. Thorek, M., and Chiari, H. H.: J. Internat. Coll. Surg. 22 (September) 1954.

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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

Mr. Jack D. Robinson of St. Joseph, representing the 4th district of Buchanan County, introduced H. B. No. 381 "to amend Section 6652 of Article 1, Chapter 53, R. S. 1909," the section which defines the qualifications of the physicians who may be appointed members of the State Board of Health. The purpose of the bill is to create three medical examining boards, one for the "allopaths," one for the homeopaths, and one for the eclectics. The provisions of these bills would seriously interfere with the present stringent control over the kind of doctors permitted to practice in this state and therefore they ought to be defeated.

Dr. D. H. Hope of Cape Girardeau has been seriously ill for several weeks. He is reported to be improving. Dr. James I. Anderson of Warrensburg was operated on recently at the University Hospital, Kansas City. He is slowly recovering. G. W. Sollars, a chiropractor at Joplin, was fined in the circuit court for practicing medicine without a license. Several other cases are pending. Dr. E. H. Miller of Liberty has been invited to appear before the Military Committee of Congress and give his view on military training in the public schools. The Board of Education of Mexico, Mo., has planned to employ a visiting nurse following the discovery of several cases of diphtheria, as a means of preventing the spread of contagious diseases among school children. Dr. E. H. Bullock of Edina has been appointed superintendent of State Hospital No. 2 at St. Joseph, to succeed Dr. W. L. Whittington recently appointed assistant physician.

Dr. G. E. Muns of Montgomery City, secretary of the Montgomery County Medical Society, has been appointed a member of the Board of Curators of the State University for a term of six years, from Jan. 1, 1917, to succeed Dr. J. C. Parrish of Vandalia, whose term has expired. A medical unit to be known as the St. Louis Unit of the American Physicians' Expedition Committee has been formed by physicians of St. Louis to go to the battlefields of Germany and Austria. Dr. W. C. G. Kirschner will be at the head of the unit, and will have associated with him Drs. B. W. Klippel, L. H. Bock and Allen Gilbert. Four nurses will accompany the party. They will sail from New York, February 7 on the Frederik VIII, and report to Ambassador Gerard at Berlin.

Dr. O. C. Gebhart, St. Joseph, Councilor for the Second District, has returned from the Mexican border where he has been during the past six months in the service of the United States Army. Dr. Gebhart has the rank of major and was commanding officer of Field Hospital No. 1. He was an honored guest at a dinner given by the citizens of St. Joseph on January 8 to welcome the return of the hospital corps. Other members of the corps at the dinner were Drs. Charles Greenburg, Robert Dorsey and C. F. Martin. Dr. Daniel Morton, who organized the hospital corps several years ago, was toastmaster.

TWENTY-FIVE YEARS AGO

An example of particular irritation to this country is the licensing of a 75,000-watt station at Villa Acuna, Mexico, opposite Del Rio, Texas, on a midchannel of the 10-kilocycle separation customary for stations operating on adjacent wave lengths in the United States and Canada. Nor is the irritation softened by the fact that the station of license, XER, was erected and will be used by Dr. John R. Brinkley, Kansas "goat gland specialist" whose station at Milford, Kansas, was sold last year when the Federal Radio Commission refused to renew his Kansas license and the action upheld by a ruling of a District of Columbia Court. In addition to this Federal action, the Kansas Medical Board revoked a certificate authorizing Dr. Brinkley to practice medicine or surgery in the state. He was off the air, nationally, and out of practice in Kansas.

Norman Baker's Radio Station KTNT.—Norman Baker, of Muscatine, Iowa, is known to the medical profession chiefly because he blackguards the profession and because he exploits alleged cancer cures as part of his many commercial activities. He is suing the American Medical Association for half a million dollars for alleged libel. Not long ago, Norman Baker applied for a renewal of his broadcasting license for his station, KTNT. The Chief Examiner for the Federal Radio Commission recently filed with the Commission his report recommending that the license be not renewed. It is reported that the Commission extended the license until April 30, 1931, pending final decision. (J.A.M.A., April 4, 1931, p. 1167.)

Dr. C. P. Hampton, University City, was appointed health commissioner of University City to succeed Dr. Leo P. Fitzgerald, resigned. Dr. Hampton is chief resident physician of the St. Louis County Hospital.

Dr. Horace W. Carle, St. Joseph, was elected president of the Missouri State Board of Health for 1932, it was announced January 11. Other offi-

(Continued on page 110)

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American women, both as individuals and in groups or associations, have a long and rich tradition of working together for the welfare of their communities.

A good life means good health and the health of a community is only as good as the health of the individuals in it. It is for this reason that women's organizations usually are especially interested in community health projects and can be relied upon to contribute the practical hard work that makes these projects successful.

As the distaff side of the medical profession we have a double obligation to aid the medical profession in achieving their objectives and to promote friendly relations among doctors and their families. To these our original objectives have been added that of promotion of better public relations.

"In recent years doctors have been shaken from their saintly pedestals of yore." With shock, M.D.'s have found themselves branded unjustifiably as modern day "sinners" by the press and the public. Physicians have been chided for a "negative attitude toward patients." They have been blamed for the high cost of medical care.

Basically there is little wrong with the way doctors practice medicine. So how can doctors correct such misconceptions and win friends for medicine? First, of course, by putting its house in order, eliminating the cause for public criticism. Then the public must be told that doctors are doing a good job. And that is where Public Relations comes into the picture. (Quoted from County Medical Public Relations Manual, prepared by A.M.A.)

Medical societies have learned that valuable public relations aid can be obtained from Woman's Auxiliaries. Doctor's wives are naturally concerned with the problems and projects of their husbands, and by the nature of their community roles . . . can be tremendously helpful in creating good public relations.

"Public relations start with the individual. Each one of us is engaged in public relations twenty-four hours a day. We, as doctor's wives, are the picture windows through which the public views the profession. There is no detour around public attitude. It is discouraging at times to realize how prone the public is to pounce on doctor's families for their frailties. We do not speak as ourselves, but as doctor's wives, to be quoted, or misquoted, according to the charitability and intelligence of the quoter.

"Being a doctor's wife is both an art and a career."

We believe this paragraph reprinted from the auxiliary "Bay Stater" of Massachusetts is well stated and is in itself ample reason why the doctor's themselves should be the first ones to insist upon their wives availing themselves of the auxiliary training ground.

In actively promoting good public relations we as auxiliary members must first understand our health heritage; we must build for our future health heritage through the American Medical Education Foundation and recruitment of nursing and other health field careers; actively work to preserve our health heritage through our safety, rehabilitation, mental health, nutrition study programs; we strive to defend our heritage by civil defense programs, which include study of first aid, home nursing and emergency care, study and participation in legislation, promotion of the Hoover Commission report; and we work hard in interpreting our health heritage to the public through the distribution of the A.M.A. health magazine, *Today's Health,* through public relations programs, contests, radio and TV programs, health day, in assisting other organizations in health programs, and many other ways.

Perhaps Mr. Leo Brown, Public Relations Chairman of A.M.A., sums it up quite adequately in his remark overheard at the Fall Conference in Chicago.

"Good public relations is like making love. You have to participate in it to get much out of it."

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

5,000 Family Physicians to Attend March 25-28 Meeting in St. Louis

More than 5,000 of the nation's family physicians will attend the Ninth Annual American Academy of General Practice Scientific Assembly, March 25-28, 1957, in Kiel Auditorium, St. Louis.

The record shattering attendance was predicted by Mac F. Cahal, the Academy's executive secretary and general counsel. Each of the last four meetings has successively established a new attendance record.

During the four day scientific meeting, the doctors will hear outstanding speakers discuss important subjects including infertility, polio vaccination, and the "neglected" pediatric areas, the eyes, ears, and feet. They will visit 60 scientific and 260 technical exhibits.

Dr. I. S. Ravdin, professor of surgery at the University of Pennsylvania, will moderate a panel discussion of preoperative and postoperative care. Dr. Philip Thorek, associate professor of surgery at the University of Illinois and professor of surgery at Cook County Graduate School will discuss "Intestinal Obstructions." Three other surgeons will highlight advances in vascular, thoracic and neurosurgery. One afternoon will be devoted to a review of procedures that assure birth of "Healthy babies" from "well mothers." Family physicians deliver 85 per cent of the nation's children.

The Academy's policy making Congress of Delegates will convene at 2:00 p. m., Saturday, March 23. All sessions of the Congress and many social functions will be held in the Sheraton-Jefferson Hotel.

Wednesday evening, March 27, following induction ceremonies for Academy President-elect Malcom E. Phelps, El Reno, Oklahoma, more than 3,000 guests will attend a president's reception and dance honoring J. S. DeTar, M.D., Milan, Michigan, president of the Academy.

Membership Dues Statements Being Mailed

Statements for 1957 annual dues to the Academy are being mailed at the present time. Dues for the American Academy of General Practice are in the same amount as in 1956: $20.00 annual dues (includes GP), active and active (exempt) members; $5.00 annual dues (includes GP), associate members and inactive members; $10.00 admission fee, paid only once by active members at the time of enrollment; $10.00 state dues, active and active (exempt) members and sustaining members. The membership of the Missouri Academy of General Practice as of November 30, 1956, was 514 active members and eighty-five associate members.

The membership of the American Academy has now surpassed 22,000.

Missouri Medicine in Review

(Continued from page 106)

cers elected are: vice president, Dr. E. Sanborn Smith, Kirksville; secretary and health commissioner, Dr. James Stewart, Jefferson City. Members of the board are: Drs. W. A. Clark, Jefferson City; H. L. Kerr, Crane; H. S. Gore, Linn, and Francis M. McCallum, Kansas City.

TEN YEARS AGO

J. A. Ossman, M.D., Jefferson City, was elected president and chief of staff of St. Mary's Hospital, Jefferson City, at a meeting of the staff on December 11. Other officers were vice president, R. P. Dorris, M.D.; secretary and treasurer, E. R. Bohrer, M.D.; executive committee, Marshall W. Kelly, M.D., H. W. Maxey, M.D., and F. W. Gillham, M.D.

Hubert M. Parker, M.D., and Harold Passman, M.D., Kansas City, were speakers on the program of the Health and Child Development Institute of the Child Health Division of the Department of Health, on January 7. Dr. Parker spoke on "Medical Problems of the Middle-Aged Woman," and Dr. Passman spoke on "The Diabetic of All Ages."

The following physicians were received into fellowship in the American College of Surgeons at a meeting held in Cleveland on December 20: Wallace H. Graham, M.D., John C. Howard, Jr., M.D., Frank L. Feierabend, M.D., Leo Pollock, M.D., Kansas City; Frank Jolley, M.D., Mexico; Marshall W. Kelly, M.D., Jefferson City; Robert W. Bartlett, M.D., Brian B. Blades, M.D., Roy V. Boedeker, M.D., Roland S. Klieffer, M.D., Alfred M. Large, M.D., Douglas A. Ries, M.D., Henry G. Schwartz, M.D., William C. Weinsberg, M.D., St. Louis.

Drs. Miller and Eggleston, representing the Macon County Medical Society, officially voted to hyphenate with the Randolph-Monroe-Chariton County Medical Society. It was voted unanimously to accept them and the official name of the society thus formed was decided by vote to be the Chariton-Macon-Monroe-Randolph County Medical Society. It was voted to make the county dues $2.

The South Central Counties Medical Society met at the Elliott Hotel, Mountain Grove, on December 20, for a dinner meeting. It was voted to continue the officers for 1946 into 1947 with R. W. Denney, M.D., Mountain Grove, to take the place of L. M. Dillman, deceased, as censor. The officers for the year are: President, J. R. Mott, M.D., Hartville; vice president, C. T. Callihan, M.D., Willow Springs; secretary and treasurer, A. C. Ames, M.D., Mountain Grove.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 54 **February, 1957** **Number 2**

Refractory Congestive Heart Failure Treatment

MICHAEL BERNREITER, M.D., *Kansas City*

It is not my intention to discuss the well established therapy of congestive heart failure as it is practiced today by most members of the profession. Rather, I wish to report my observations on patients who have become refractory to the routine treatment, or, as a result of it. If one becomes aware of the conditions, recognizes and corrects them, at least some of these patients in refractory and apparent hopeless failure will be salvaged.

OVERDIGITALIZATION

The tolerance to digitalis differs widely in patients. Any effective digitalis preparation may produce toxic symptoms. Tachycardia frequently is induced by digitalis and if this is not recognized, and digitalis continued or the dose even increased, paroxysmal ventricular tachycardia may result. At this state, continuation of digitalis, particularly if given intravenously, may lead to ventricular fibrillation and sudden death (fig. 1). Other less dramatic side reactions of overdigitalization are frequent premature contractions, particularly "bigemini," an arrhythmia in which every normal beat is followed by a premature contraction. Partial and complete heart block, paroxysmal auricular tachycardia and auricular fibrillation may all be the result of digitalis intoxication. All these arrhythmias add to the strain of the failing heart and prevent compensation if not recognized and corrected.

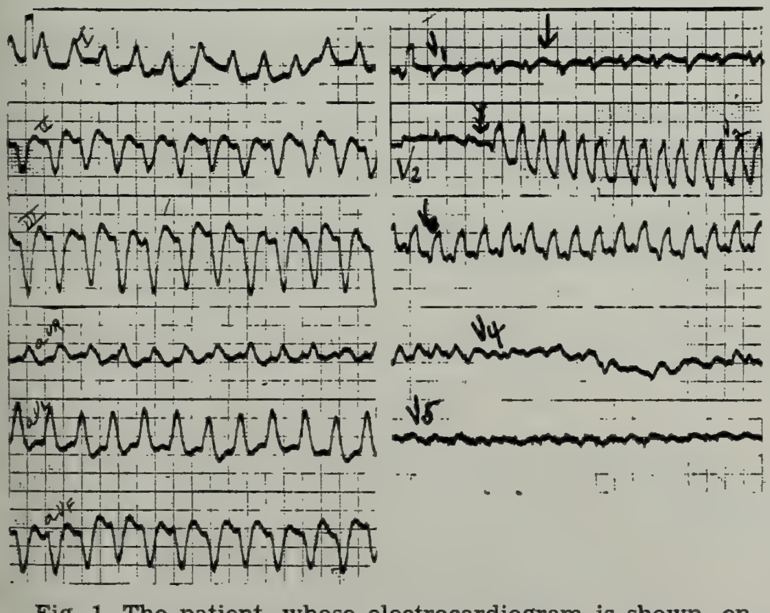

Fig. 1. The patient, whose electrocardiogram is shown, entered the hospital in acute and severe cardiac failure. Because digitalization, started at home, was considered incomplete, intravenous crystodigin was started (at arrow V_1). The rhythm almost immediately changed to ventricular tachycardia (at arrow V_2) and ventricular fibrillation (V_4) and he expired before the tracing was complete.

Besides the disturbances in cardiac rhythm, gastrointestinal symptoms consisting of anorexia, nausea and vomiting are the most common evidence of overdosage with digitalis.

The electrocardiographic changes caused by digitalis are quite characteristic and in the correct interpretation of the arrhythmias the electrocardiograph is the "last court of appeal."

If intoxication does occur, the two simplest effective counter measures are the temporary discontinuance of digitalis and the administration of potassium chloride. It seems safe to assume that potassium in adequate doses (2 grams every four hours) is a specific antidote against all symptoms induced by overdigitalization.[1] Intravenous injection of even small amounts of glycosides must be avoided in all cases in which digitalis intoxication is even a remote possibility.

UNDERDIGITALIZATION

It is not always easy for the physician to ascertain that satisfactory digitalization has been accomplished and that the patient has received maximum therapeutic benefit. Relief of dyspnea, orthopnea and cardiac asthma, beginning diuresis and loss of edema, disappearance of rales from lungs and lowering of venous pressure are all good indications of satisfactory therapeutic effect. Slowing of the heart, as a rule, is a good criteria of favorable digitalis response. On the other hand, a rapid pulse is not always an indication for larger doses of digitalis as the existing tachycardia may be the direct result of digitalis intoxication (ventricular premature contractions, ventricular tachycardia).

The electrocardiogram is perhaps the most useful tool to determine the status of digitalization.

HYPOCHLOREMIC ALKALOSIS

Profuse mercurial diuresis, vomiting, salt restriction and potassium depletion may precipitate a clinical syndrome characterized by hypochloremic alkalosis. This is one of the most common electrolyte disturbances encountered during the treatment of congestive failure. Chloride is excreted in excess of sodium.[2] The patient becomes more resistant to diuretics, edema increases and failure becomes more pronounced. If at this point the attending physician is tempted to push the mercurials even harder, to increase digitalis and order even more salt restriction, serious trouble is just around the corner. If a patient in heart failure becomes refractory to treatment and resistant to diuretics, one should think of hypochloremic alkalosis. If the condition is unrecognized and allowed to progress, or even enhanced by more vigorous diuretics and salt restriction, the patient is sure to die.

The diagnosis is simple and is made in the laboratory. Serum chloride is markedly decreased, CO_2 combining power increased (alkalosis), serum sodium normal or slightly increased. The treatment, simple and usually successful, consists of administration of ammonium chloride which will replenish the depleted chloride stores. This is best given in doses of 3 to 4 gm. daily by mouth. When potassium deficits have also occurred in prolonged diarrhea, vomiting and postsurgical states, potassium chloride should be added to the replacement therapy outlined.

HYPONATREMIA

Occasionally one sees patients in refractory cardiac failure in whom the sodium concentration is depressed beyond that of chloride. This is not the "low salt syndrome" which will be discussed under the next heading. This condition may occur in cardiac patients who have not necessarily been on excessive dietary salt restriction or on vigorous diuretic therapy. Among the factors which have been implicated in hyponatremia are water intoxication, particularly the use of excessive amounts of nonelectrolytic solutions postoperatively, diarrhea and intestinal drainage with excessive sodium loss, primary changes in intracellular osmolarity and abnormal transfers of electrolytes between body fluid compartments[3] and, recently, prolonged use of diamox, which specifically affects sodium excretion by renal tubules.

The symptoms associated with hyponatremia are restlessness, anorexia, vomiting and, finally, peripheral vascular collapse with hypotension, cold extremities and rapid, feeble pulse. If the condition is well advanced a fatal outcome is invariable in most of these cases.

Hyponatremia with a serum sodium value reduced to less than 120 mEq. per liter in cardiac patients who also show signs of water intoxication, usually respond well to intravenous administration of isotonic or concentrated sodium chloride solutions.[4]

THE SALT DEPLETION SYNDROME

These patients have a reduced serum concentration of sodium as well as of chloride. Such situations frequently result directly from therapeutic maneuvers like vigorous mercurial diuretics and digitalis and are usually aggravated by drastic sodium restriction. As an example, a patient in congestive failure has been responding well to the usual therapeutic program, but gradually he fails to improve further, dyspnea and orthopnea increase and fluid retention continues or becomes more pronounced. The physician, not recognizing the salt depletion syndrome, may consider his treatment inadequate and institute more vigorous method to produce diuresis. The patient will show signs of lassitude, apathy, weakness and anorexia; he will begin to vomit and complain of muscular cramps and finally become disoriented. By the time electrolyte depletion is suspected, the condition has often become irreversible and terminates in death.

Reappearance of cardiac failure or inability to respond to mercurial diuretics should arouse strong suspicion of electrolyte depletion. This is no time to omit laboratory tests in order to spare the patient expenses. The electrocardiogram will now give convincing evidence of serious electrolyte imbalance and laboratory determinations will show that serum sodium and chloride have fallen to dangerously low levels. Once the condition is recognized, the treatment consists of oral administration of salt or, if vomiting exists, of hypertonic salt solutions cautiously given by vein. Clinical improvement will become manifest within a few hours, the serum chloride and sodium values will rise and urine volume and blood pressure will improve.

HYPOCHLOREMIC ACIDOSIS

Ammonium chloride is a useful adjunctive diuretic to the mercurials. The chloride ion displaces bicarbonate ion and produces a shift toward acidity. It may be given four days in doses up to 8 grams per day without producing serious symptoms. But if given continuously for long periods, or to patients with renal disease whose defense against acid base disturbance is inadequate, severe hyperchloremic acidosis and coma will result.[5]

The increasing use of cation exchange resins in cardiac patients may also result in hyperchloremic acidosis. Patients with associated renal disease are unable to excrete the acid released by resin.

The clinical picture is stupor, hyperpnea and coma with the laboratory showing low plasma carbon dioxide content. One must be careful not to dismiss these findings as terminal renal disease, diabetic acidosis or cerebral vascular accident. If stupor or coma develops in a patient with congestive heart failure, the physician should always consider the possibility of hyperchloremic acidosis (ammonium chloride poisoning).

In mild cases of acidosis the simple withdrawal of ammonium chloride will usually suffice. Severe poisoning will necessitate careful intravenous administration of from 1,500 to 3,000 cc. of isotonic sodium bicarbonate or lactate. This infusion must be given slowly and should be discontinued as the patient's sensorium clears. Oral administration of alkali are quite effective if the patient is able to cooperate.

POTASSIUM DEPLETION

Massive diuresis coupled with poor food intake may produce potassium deficiency. This condition is suggested clinically by a striking degree of muscular weakness and cardiac irregularities. Loss of potassium through the gastrointestinal tract or following administration of diuretics[6] may produce digitalis intoxication and a variety of arrhythmias may ensue. The diagnosis can be ascertained by serum potassium determination and characteristic findings in the electrocardiogram.[7] Serial electrocardiographic tracings are more useful to determine the total effect of the ionic environment upon the cardiac muscle than the determination of the serum concentration of the individual electrolytes.[8]

Prompt recognition of this syndrome and correction is quite important. Close attention to the electrolyte status, particularly in older patients under prolonged treatment for congestive heart failure is indispensable.

Potassium depletion is best treated by oral administration of 1 gram of potassium chloride four times daily. If necessary 40 mEq. of potassium in 1,000 cc. of 5 per cent dextrose solution may be given intravenously.

SUMMARY

An attempt has been made to illustrate the increasing importance of iatrogenic and spontaneous disorders leading to intractable heart failure. The emphasis is on the correct diagnosis and clinical management. Some of the patients in cardiac failure who apparently have become refractory to routine treatment and would be doomed to die will still be salvaged if the attending physician considers the possibilities outlined herewith. One must make an extreme effort to correctly diagnose the situation at hand and then institute the correct treatment. The recognition of the factors outlined in this paper are at times of critical importance in determining the prognosis and continued response to therapy.

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BIBLIOGRAPHY

1. Sampson, J. J.; Alberton, E. C., and Kondo, B.: The Effects on Man of Potassium Administration in Relation to Digitalis Glycosides With Especial Reference to Blood Serum Potassium, the Electrocardiogram and Ectopic Beats, Am. Heart J. **26**:164, 1943.
2. Schwartz, W. B., and Wallace, W. M.: Electrolyte Equilibrium During Mercurial Diuresis, J. Clin. Invest. **30**:1089, 1951.
3. Schwartz, W. B., and Relman, A. S.: Electrolyte Disturbances in Congestive Heart Failure, J.A.M.A. **154**:1237, 1954.
4. Wynn, V., and Rob, C. G.: Water Intoxication: Differential Diagnosis of Hypotonic Syndromes, Lancet **1**:587-594 (March 20) 1954.
5. Sleisinger, M. H., and Freedberg, A. S.: Ammonium Chloride Acidosis, Circulation **3**:837, 1951.
6. Lown, B.; Salzberg, H.; Enselberg, C. D., and Weston, R. E.: Interrelation Between Potassium Metabolism and Digitalis Toxicity in Heart Failure, Proc. Soc. Exper. Biol. & Med. **76**:797, 1951.
7. Levine, H. D.: Electrolyte Imbalance and the Electrocardiogram, Mod. Concept Cardiovas. Dis. **23**:246, 1954.
8. Bernreiter, M., and Calovich, E. R.: Hyperpotassemia and Hypopotassemia in a Case of Anuria Followed by Severe Diuresis, J.A.M.A. **147**:1036, 1951.

Primary Mesenteric Vascular Occlusion

A Report of Seven Cases, Six of Which Survived Operation

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PRIMARY MESENTERIC vascular occlusion remains a catastrophic illness, one which tests the knowledge and skill of the surgeon in diagnosis, operative technic, and postoperative care. The seriousness of the condition is indicated by the low survival rates. In reviewing the literature in 1950,[1] reports were found of 611 cases with fifty-three patients surviving various forms of management (8.6 per cent). An exhaustive study of the literature in 1953 by Mersheimer, et al.[2] disclosed some 212 survivors. Even more recent reports confirm the pessimistic outlook. Uricchio, et al.[3] had two patients survive of a total of thirteen cases on whom operation was performed. Of twelve patients operated on, Wilson, et al.[4] report only two recoveries and Mersheimer, et al.[2] report salvaging five of twelve cases on whom operation was performed.

INCIDENCE

The seven cases of primary mesenteric vascular occlusion which we are presenting in this paper represent our total operative experience with the disease. (Intestinal gangrene due to strangulated hernias, adhesive bands, and intestinal obstruction are not included.) This is an incidence of one case in each 10,000 clinic patients or about 0.01 per cent. Uricchio, et al.[3] found the condition in 0.004 per cent of the admissions at the Rhode Island Hospital; Warren and Eberhard[5] in 0.02 per cent of the admissions at the Massachusetts General Hospital, and Roby[6] in about 0.02 per cent of the admissions at the Boston City Hospital.

ETIOLOGY

Mesenteric vascular occlusion may be caused by emboli which come from vegetations on cardiac valves, mural cardiac thrombi or atheromatous plaques on the walls of the aorta or mesenteric arteries. The causes of spontaneous thrombosis in the mesenteric vessels awaits the explanation of the phenomenon of intravascular clotting occurring much more frequently in the heart, brain and lower extremities. Mesenteric arterial thrombosis has been associated with mesenteric arteriosclerosis, thromboangiitis obliterans, periarteritis nodosa, Raynaud's Disease and trauma. On the venous side the thrombosis has accompanied portal hypertension due to cirrhosis of the liver, congestive heart failure and pressure from tumors.

In one of our cases, arterial spasm—superimposed on vascular narrowing incident to longstanding hypertension—appears to have been sufficient to cause gangrene of the bowel (Case 7). This phenomenon has received scant attention in British and American literature, but it is mentioned in European and South American writings.[7, 8, 9] Trotter[10] found 60 per cent of his cases were caused by arterial blockage and 40 per cent by venous obstruction. Sixty per cent of the arterial occlusions were caused by emboli. In our group, emboli could not be blamed in any instance. In one case, an arterial thrombosis caused the gangrene, and in another case pressure from a tumor caused a venous thrombosis. In the four remaining patients, spontaneous venous thrombosis appeared to be the cause of the gangrene.

GROSS PATHOLOGY

The fully developed pathologic picture is readily identified. Blood stained fluid is present in the peritoneal cavity. The bowel is purple-black in color, swollen, dilated and paralyzed with dull peritoneal covering and blood filled lumen. The mesentery, likewise, is swollen, a splotchy purple color, and the arterial pulsations are absent. Early or atypical changes may be less readily apparent, however, since in recent arterial occlusions the bowel may be merely paler than normal with minimal or absent swelling and with contractions still present or even overactive. The only positive identifying point, therefore, is the absence of pulsations in the mesenteric arteries. In cases in which arterial spasm is an important factor, the intermittent appearance of pulsations in the mesentery and bowel wall may be observed and, on manipulation, the bowel wall may be seen to change from a dusky blue to normal and back again.

DIAGNOSIS

Classically, the patient is in the older age group and is stricken with intermittent midabdominal pain. As the discomfort increases in severity over a period of two to four days, it tends to localize in the part of the abdomen in which the involved segment of intestine lies. Bowel movements frequently persist, and in the later stages contain old or dark blood. Vomiting commonly occurs. Blood pressure usually remains normal. The abdomen is mildly to moderately tender with the localization over the part of the intestine afflicted. Most frequently it is soft and doughy and without palpable masses.

From the Surgical Section of the Thompson-Brumm-Knepper Clinic, St. Joseph, Missouri.

Bloody feces are present in the rectal ampulla. X-rays of the abdomen usually show unusual amounts of air in the small and large bowel but of no specific pattern.

Practically speaking, however, mesenteric vascular occlusion probably has the least "typical" clinical picture of any of the acute abdominal diseases. In our small series, the onset was acute in two cases with immediate severe pain bringing the patients to their physicians within four to six hours of the onset. One occlusion occurred in a robust 33 year old male. Blood appeared in the stool in only two cases, one of which represents the single fatality in this series. Two of the patients went into shock before operation. Two cases demonstrated no appreciable elevation of the white blood count.

Recognition of the condition then rests on a high index of suspicion, and often the surgeon must make the decision to intervene after having ruled out the nonoperative problems. If the complete array of characteristic signs and symptoms is awaited before exploring the abdomen, the patient may have deteriorated beyond the point of salvage.

OPERATION

At operation the surgeon may be confronted with problems requiring critical judgment. If the occlusion is early and on an embolic basis, no significant visible change in the bowel may be evident. The color may be normal, edema may be absent and peristaltic action unaltered or increased. Here, accurate diagnosis depends on finding no palpable or visible arterial pulsations in the mesentery and bowel wall. Wilson, et al.[4] reported a case in which the exploration was thought to be negative and the abdomen closed without resection of bowel only to have the eventual autopsy disclose an extensive gangrene of the small intestine. When there is reason to suspect an embolus, careful exploration should be made of the larger vessels for the obstructing body. If one is found, consideration must be given an embolectomy which, if feasible, is preferable to resection of large amounts of intestine.[11] In cases in which arterial spasm is a predominant factor, the use of vasodilators, splanchnic nerve block or procaine infiltration of the mesentery may result in the relief of the spasm, and some or all of the small intestine may be salvaged.

When massive portions of the bowel are gangrenous, the surgeon is rightfully concerned lest by extensive resection he leave the patient a gastrointestinal cripple. The absolute minimum of small intestine necessary to maintain life is unknown, but fatality is certain if any bowel without adequate blood supply is left in the abdomen. One of our patients with two feet (60 cm.) of small intestine remaining and another with four feet (120 cm.) of small intestine remaining, have continued to lead productive and reasonably comfortable lives over a period of five and three years respectively. Massive resection with survival have been reported by Meyer,[12] Cogswell[13] and Chodoff.[14] Our policy has been to resect all bowel and mesentery which obviously do not have adequate blood supply. The adequacy of circulation has been determined by feeling or seeing arterial pulsations in the vasa recti or by transecting doubtful areas of mesentery and bowel wall and observing blood spurting from the cut edges and the veins free of thrombi.

If all the small intestine appears to be involved the use of vasodilators or injecting the mesentery with procaine may be helpful in salvaging an adequate amount of bowel to make a resection worth while.

POSTOPERATIVE CARE

In the immediate postoperative phase, the surgeon's greatest concern is the possibility of extension of the occlusive process. Although not used exclusively in our own cases, we now believe that anticoagulants should be given in all instances following resection, and should be employed until the bowel has resumed its normal function. We now prefer regular Heparin which is easily administered and easily controlled. We recommend giving 50 mgs. of regular Heparin intravenously immediately after operation and repeating every four to six hours. Lee and White coagulation time determination is made every six hours and Heparin dosage adjusted as needed to prolong coagulation time to about twenty minutes. After gastrointestinal function has been established, Dicumarol may be employed.

When small amounts of small intestine remain, the patient must have prolonged nutritional supervision. The decrease in absorptive surface results in rapid elimination and loss of fluid, electrolytes and valuable dietary components. While digestion appears adequate the absorption of fat is poor. Furthermore, the large amounts of fatty acid in the stool results in the loss of calcium required to form calcium soaps which may deplete calcium stores in the body, resulting in tetany. Protein is fairly well absorbed and carbohydrates well taken up. The frequent stools may result in dehydration and a thirst that is difficult to assuage. Our policy is to put these patients on high protein, high carbohydrate, low fat diet, which is supplemented by calcium and a high potency polyvitamin preparation. Diarrhea may be somewhat controlled by paregoric and intestinal antispasmodics such as belladonna. Patients being given a variety of liquids may find one more helpful than another in satisfying their thirst. For example, one patient feels that beer "stays with him" longer than any other fluid. Under this therapy, the patient first loses weight but later generally starts to gain.

CASE REPORTS

Case 1. T. Y., a 74 year old white male, was admitted to the hospital on April 2, 1948, complaining of midabdominal pain of twenty-four hours' duration. Soon after onset the pain had shifted to the right lower quadrant. Since the beginning of the illness, one bowel movement had occurred without blood in the stool. The patient had vomited once.

On examination the pulse rate was 100, temperature, 98.6 F., and the blood pressure 150/78. There were tenderness and rigidity in the right lower abdominal quadrant. Rectal examination disclosed no blood. The white blood cell count was 19,950.

At laparotomy a gangrenous segment of ileum 18 inches (45 cm.) in length was resected. The pathologic diagnosis was gangrenous segment of small bowel due to venous thrombosis.

One hundred milligrams of Heparin were given intravenously three hours following operation. Beginning twelve hours after surgery, 300 mg. of Heparin in Pitkin's menstruum were given subcutaneously every other day for three doses. This kept the clotting time between 20 and 25 minutes by the Lee and White method. Dicumarol was begun on the fifth day and the prothrombin time prolonged to 14 per cent of normal. The patient made a satisfactory recovery, was discharged from the hospital on the twenty-fourth postoperative day and remains well to the present time.

Case 2. S. K., a 75 year old white male, was admitted to the hospital on December 16, 1948, complaining of a sudden onset of pain in the right lower abdomen five hours previously. He had vomited once and had passed a bloody stool.

On examination, the pulse rate was 90, the temperature, 98.6 F., and the blood pressure 130/82. There was tenderness with rigidity in the right lower abdominal quadrant. The white blood cell count was 24,550.

At operation a gangrenous segment of ileum about 30 inches (76 cm.) long was resected. Pathologic report was gangrene of the small intestine due to venous thrombosis.

Immediately after the operation 50 mg. of Heparin were given intravenously and repeated at four hour intervals for three doses. Twenty-four hours after the surgery 300 mg. of Heparin in Pitkin's menstruum were given deeply subcutaneously. This dose was repeated on the third and fourth postoperative days, prolonging the coagulation time to 15 to 20 minutes by the Lee and White method. On the sixth postoperative day, the patient tolerating medication by mouth, Dicumarol was started and continued until the prothrombin time was 7 to 30 per cent of normal. On the eighteenth postoperative day there was acute retention of urine and a transurethral prostatic resection was done. Five days later a second stage transurethral resection was necessary. This procedure was prolonged and the patient developed a chill, went into shock and died about six hours after completion of the operation. Autopsy showed no evidence of disease in the abdomen and the intestinal anastomosis was well healed indicating no deleterious effect of anticoagulants on wound healing. Death was believed to be due to transfusion reaction during operation. In spite of the fact that the patient died from another disease, it seems rational to report this case as recovery from mesenteric thrombosis.

Case 3. H. L., a 33 year old white male, was admitted to the hospital on March 6, 1951, complaining of abdominal pain of three days' duration. He had developed aching pains over his entire body about three weeks previously. His physician had advised him to have teeth extractions and several teeth had been removed in the subsequent ten days. Approximately three days prior to hospital admission, the patient had developed griping, midepigastric pain which persisted in severity, shifted to the left upper quadrant, and became constant in the eight hours prior to hospital admission. Constipation had increased and an enema did not produce any feces or air. There had been no tarry or bloody stools.

On examination the patient was well nourished and muscular. The blood pressure was 130/100, the pulse 100, the temperature, 96.4 F. and the white blood count was 10,400. He was breathing deeply and rapidly and appeared extremely ill. The abdomen was flat and extremely tender in the left upper quadrant. There were no masses and there was no spasm. The rectal examination disclosed no feces or blood in the rectum. X-rays of the abdomen were normal.

Six hours after admission the pulse rate began to increase, pain and tenderness in the abdomen began to spread and rigidity of the left abdominal wall developed. In removing the patient to the operating table, the blood pressure fell to 70/40 and the pulse rate increased to 150 per minute. A blood transfusion was given, and the blood pressure returned to 140/100. At laparotomy gangrene of the small bowel, begining 18 inches (45 cm.) from the ligament of Treitz and extending for a distance of 11 feet (330 cm.) was found, necessitating resection of the bowel down to within 8 inches (20 cm.) of the colon. About 24 inches (60 cm.) of small intestine remained. The pathologist reported gangrene of the small intestine due to venous thrombosis.

During the hospital stay the patient had four to six watery bowel movements a day. He was given a diet high in carbohydrate and protein and low in fat, supplemented with oral calcium gluconate and a multivitamin preparation. Convalescence otherwise was uneventful.

The patient returned to his previous job as a switchman where he still works. After about two years he began to regain his weight (which had fallen to 147 pounds) and he now weighs 180 pounds. One of his most difficult problems has been thirst and he finds that beer affords more lasting relief than any other beverage. He follows his diet fairly closely, but he continues to have four to six semisolid stools a day.

Case 4. Mrs. M. R., a 71 year old white woman, was admitted to the hospital on January 11, 1952, complaining of abdominal pain of about four hours' duration. The pain had started in the lower midline and had migrated to the midepigastrium, She had vomited on numerous occasions since the onset of her distress, bringing up ordinary gastric contents. There had been no bowel movement.

On examination the patient appeared to be in a great deal of pain. The blood pressure was 168/110, the pulse was 90, the temperature, 99.6 F. On palpation of the abdomen there was a slightly doughy, tender fullness in the lower midportion measuring 15 by 20 cm. in greatest diameters, having the consistency of a mass of intestinal loops. On pelvic examination, the mass could be felt bimanually and the uterus could be made out anteriorly and appeared to be small. There was no blood in the rectum. White blood count was 14,000. X-ray film of the abdomen demonstrated a fairly homogenous mass in the lower abdomen filling the pelvis.

At laparotomy 4 feet (120 cm.) of gangrenous ileum were resected, the anastomosis lying about 1 foot (30 cm.) from the ileocecal valve. The pathologic report was gangrene of the small intestine due to arterial thrombosis.

The patient was dismissed nine days later in good condition and had been so until May 11, 1956, at which time she was seen for nervousness, gaseousness, abdominal distress and weight loss of about 15 pounds in the previous three months.

X-ray examination of the upper gastrointestinal tract demonstrated what was considered to be a filling defect in the stomach.

Laparotomy was performed but no gastrointestinal pathology was found. Ileal anastomosis was well healed. A saccular aneurysm of the right common iliac artery measuring 2 cm. in diameter was reinforced with glass cloth. Convalescence was uneventful and the patient remains well at the present time without symptoms of gastrointestinal disease.

Case 5. Mrs. V. D., a 69 year old female, was admitted to the hospital on July 6, 1954, with the complaint of five days of cramping, midabdominal pain. For five years the patient had had a great deal of abdominal distress following an abdominal exploration performed elsewhere at which time she was thought to have cholelithiasis. Her gallbladder was not removed since no stones were found. During her present illness the patient had been nauseated, had vomited and had been constipated. There had been no blood in her stools.

On examination peristaltic sounds were overactive. The abdomen was distended. No masses were felt. There was no blood in the rectum. Her temperature was 99 F., the pulse was 88 and the blood pressure was 138/70. The white count was 9,200. X-ray disclosed dilated loops of small bowel with no gas in the colon.

At laparotomy a dilated gangrenous loop of small bowel measuring 3 feet (90 cm.) in length was found. The vascular obstruction was due to a baseball sized tumor in the mesentery of the terminal ileum and the right colon. Enlarged, hard lymph nodes also were present in the mesentery. To remove the tumor and all palpably enlarged nodes, an extensive resection of the bowel was undertaken, removing all but the proximal 4 feet (120 cm.) of small intestine along with the right half of the colon and making an enterocolostomy between the upper jejunum and the midtransverse colon.

Pathologic examination demonstrated a malignant carcinoid arising in the ileum causing venous thrombosis which resulted in gangrene of approximately 3 feet (90 cm.) of ileum.

During convalescence the patient had six to eight stools a day. She received a high carbohydrate, high protein, low fat diet, supplemented by vitamins and calcium. At present the patient has three to six semisolid stools a day. She follows her diet fairly well, has regained her weight, is doing her own housework, and is leading a fairly comfortable life.

Case 6. S. G., a 69 year old female, was admitted to the hospital on November 26, 1954, complaining of abdominal pain for about three days' duration. There had been rather severe nausea, vomiting and constipation, but no bloody or tarry stools.

On examination the temperature was 99 F., the blood pressure was 140/60 and the pulse rate was 120. The abdomen was slightly distended, quite tender and rigid. There was a soft, rather indefinite, mass in the right side. On digital examination there was no blood in the rectum. The white blood count was 27,250. An x-ray film of the abdomen disclosed dilated loops of small bowel with fluid levels.

Just before operation the blood pressure fell to an imperceptible level and the pulse could not be obtained. Vigorous resuscitative measures were carried out, and a discernible pulse returned. At laparotomy it was discovered that the gangrenous bowel had perforated spontaneously and the abdomen contained bloody fluid and intestinal contents. However, a resection of all the involved bowel, which amounted to about 15 inches (32 cm.), was done.

Pathologic examination demonstrated gangrene of the small intestine, with thrombosis of the mesenteric veins.

The patient's convalescence was uneventful and she remains well today with no symptoms of gastrointestinal abnormality.

Case 7. H. L. M., a 57 year old white man, was admitted to the hospital March 28, 1956, with the history of four days of increasing abdominal pain, nausea, vomiting, diarrhea, oliguria and severe weakness. Vomitus originally was bile stained, but in the last twenty-four hours bright red blood had been present in it. At first stools had been brown in color, but in the last twenty-four hours they had contained small clots. A similar but less severe episode had occurred one month previously, lasting about a week, requiring about a week to recover from the weakness accompanying it.

The patient had had a ten year history of severe hypertension, the blood pressure ranging around 200/130. In the past month he had been having increasing dyspnea and ankle edema, requiring mercurials and digitalis. Four months previously he had had a cholecystectomy for acute and chronic cholecystitis with cholelithiasis.

On examination the patient appeared to be acutely ill. The blood pressure was 200/140, the pulse was 92 and the temperature, 98.6 F. There was a fairly recent hemorrhage of the right retina. The heart was slightly enlarged to percussion. The abdomen was tightly guarded with generalized tenderness, a little greater in the right lower quadrant. The rectum contained feces tinged with old blood. The white blood count was 37,500. A flat x-ray film of the abdomen showed dilated loops of small bowel.

At laparotomy gangrene of the small intestine began one foot from the ligament of Treitz and extended to within one foot of the cecum. At the upper and lower margins of the gangrenous bowel palpation of the mesentery revealed alternating presence and absence of pulsations in piano-wirelike arteries and the bowel wall color seemed to alternate between normal and a dusky blue. The significance of this phenomenon was not recognized at the time. In the resection of the bowel these areas were removed along with the obviously gangrenous intestine resecting a total of 16 feet (500 cm.), leaving about 20 inches (52 cm.).

Pathologic examination showed gangrene of the small intestine. There was marked medial and intimal hyperplasia of the mesenteric arterioles, in most instances almost completely occluding the lumen. There was no definite arterial or venous thrombosis anywhere. This probably was an instance of marked vascular deterioration and narrowing of the arterial tree incident to long standing hypertension, with the final event being arterial and arteriolar spasm which was sufficient to cause a gangrene of the bowel.

Heparin was started postoperatively, but because of massive bleeding from the incision, it was neutralized with Protamine. The patient succumbed twenty-four hours following operation, and autopsy demonstrated extension of the gangrene into the remainder of the small intestine, but still no thrombosis was apparent in the mesenteric blood vessels. We now believe that the employment of vasodilators, splanchnic nerve block, or procaine infiltration of the mesentery might have been useful in salvaging more intestine at operation and in preventing extension of the gangrene postoperatively.

SUMMARY

Seven cases of primary mesenteric vascular occlusion are presented of which six survived (85.7 per cent) the operative procedure and five are living two to eight years after bowel resection. We feel that the pessimism regarding this disease may be unwarranted. We believe that by early, aggressive attack, careful operative technic and judicious use of modern adjuncts to surgery, improvement can be made upon the currently reported survival rates.

BIBLIOGRAPHY

1. Knepper, P. A.; McDaniel, J. R.; Brooker, R. M., and Neudorff, L. G.: Primary Mesenteric Thrombosis Treated With Resection and Anticoagulants, Am. J. Surg. **80**:937, 1950.
2. Mersheimer, W. L.; Winfield, T. M., and Fankhauser, R. L.: Mesenteric Vascular Occlusion, Report of 5 Successful Resections, Arch. Surg. **66**:752, 1953.
3. Uricchio, J. F.; Calenda, D. C., and Freedman, D.: Mesenteric Vascular Occlusion: An Analysis of 13 Cases With a Report of 2 Cases With Survival Following Extensive Intestinal Resection, Ann. Surg. **139**:206, 1954.
4. Wilson, G. S. M., and Block, J.: Mesenteric Vascular Occlusion, Arch. Surg. **73**:330, 1956.
5. Warren, S., and Eberhard, T. B.: Mesenteric Venous Thrombosis, Surg., Gynec. & Obst. **61**:192, 1935.
6. Roby, W. H.: Thrombosis in Abdominal Viscera, Med. Clin. N. Amer. **16**:845, 1933.
7. Cottalorda, J. R.: Propos de deux observations de troubles vasculaires mesentriques. Two Cases of Vascular Disturbance of the Mesentery, Bull. Soc. Chir. de Marseille **20**:46-50, 1947.
8. Longo, O. F.: Infarto intestinomesenterico inexplicado o apoplejia intestinomesenterica. Unexplained Enteromesenteric Infarction or Apoplexy, La Pren. Med. Argentina, **34**:419-421, 1947.
9. Pierini, A.: Infarto 'inexplicado o apoplejia intestinal 'Unexplained' Infarction of Intestinal apoplexy, Acad. Argentina de Cirug. **31**:523-536, 1947.
10. Trotter, G.: Embolism and Thrombosis of Mesenteric Vessels, London, 1913. Cambridge University Press.
11. Klass, A. A.: Embolectomy in Acute Mesenteric Occlusion, Ann. Surg. **134**:913, 1951.
12. Meyer, H. W.: Acute Superior Mesenteric Artery Thrombosis: Recovery Following Extensive Resection of Small and Large Intestines, Arch. Surg. **53**:298, 1948.
13. Cogswell, H. D.: Massive Resection of the Small Intestine, Ann. Surg. **127**:377, 1948.
14. Chodoff, R. J.: Mesenteric Vascular Occlusion: Case Report of Successful Resection of All but 8 Inches of Jejunum and Ileum, Ann. Surg. **131**:440, 1950.

INSTRUCTION COURSES

Highlight of the 1957 Program

99th Annual Session

Missouri State Medical Association

See program on page 150

Pott's Disease

Trends in Management

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TUBERCULOSIS of the spinal column (Pott's Disease) is seldom encountered nowadays by the practicing orthopedic surgeon. Its incidence has declined with the incidence of tuberculosis in general. Its management, however, has not changed a great deal until the advent of newer chemotherapeutic agents and antibiotics.

PATHOLOGY

The vertebrae are the bones most commonly affected by tuberculosis. The highest incidence of Pott's disease is in children (50 per cent of cases occurring between 3 to 5 years of age) although it does occur in adults. The segment of the spinal column most commonly affected is that portion of greatest mobility, the T 10 to the L 1 segments. The disease may occur, however, in any portion of the cervical, thoracic or lumbar spine.

The disease process usually begins in the outer portion of the vertebra which is supplied by a branch of the posterior spinal artery. Several adjoining vertebrae often show discrete lesions. The involved area becomes caseous and the disease spreads to and destroys the intervertebral disk, but spares the transverse articular and spinous processes. The destruction of the disk is of special importance in the differentiation between tuberculosis and metastatic malignancy of the vertebral column for, in the latter, the disks are hardly involved. There is a tendency for kyphosis to develop on account of the pathologic process. The bodies collapse in front while the spines remain intact.

A "cold abscess" often develops and this may trek in almost any direction, although it is unable to travel directly backward because of the posterior longitudinal ligament. It soon escapes at the side of the vertebra and may form retropharyngeal or cervical abscess in the neck; in the thoracic region it may spread along a rib and point laterally or anteriorly, and in the lumbar region it may enter the sheath of the psoas muscle, pass down as a psoas abscess into the iliac fossa under the Poupart's ligament from where it may pass down the thigh as far as the popliteal space. Seldom does the pus enter the iliacus muscle sheath, in which case it will point above the Poupart's ligament.

CLINICAL FEATURES

The general complaints include low grade fever, anorexia, malaise and night sweats. Pain and weakness of the back associated with stiffness and muscle spasm are common. A change in gait may be noticed due to protective mechanisms to avoid jarring. In the cervical and lumbar regions there is usually limited motion. Because of the natural rigidity of the thoracic region, limited mobility may not be observed if it is involved. Any of the signs and symptoms of chronic low back conditions may be present with irritation of the psoas muscle. Hip flexion contractures may develop suggesting hip disease. Occasionally the first sign of Pott's disease may be bulging in the inguinal or femoral regions from a psoas abscess. The kyphosis of Pott's disease is a late finding.

A positive reaction to a tuberculin skin test is suggestive, but not conclusive, evidence of the disease. It is rare to obtain a negative reaction in a patient with active tuberculosis so that it almost always connotes the absence of the disease. A presumptive diagnosis is aided by the presence of tuberculosis elsewhere in the body, usually pulmonary or gastrointestinal type.

LABORATORY

The demonstration of the tubercle bacilli by smear or culture from aspirated material or from specimen of infected tissue and the production of active tuberculosis in guinea pigs inocculated with infected material constitutes conclusive proofs of diagnosis.

X-RAY

The roentgenogram is of great aid in establishing the diagnosis. The demonstration of the narrowing of the intervertebral disk and the lytic destruction of the adjacent vertebral bodies accompanied by paravertebral abscess is extremely suggestive.

DIFFERENTIAL DIAGNOSIS

Conditions which may simulate tuberculosis of the spine, especially in adults, are: low grade pyogenic osteomyelitis—the proliferative bony changes seen in this condition are an aid in the differentiation; malignant metastasis; chronic arthritis; fractures of the vetebral body, and other granulcmatous infections such as actinomycosis.

CASE REPORT

This 26 year old Japanese housewife was apparently well until three months before she was first admitted to this hospital on January 27, 1956, complaining of low back pain which gradually increased in intensity, radiated to both inguinal areas down to both legs to the

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anterior-medial aspects of the knees but more marked over the right side and aggravated by walking. It was quite difficult and painful for her to sit upright on the side of the bed. She walked, however, without obvious difficulty. The back presented no positive findings except that she refused, or was unable, to flex the lumbosacral spine. Movements in all other directions, however, were normal. X-rays showed "thinning of L 3 interspace with some misalignment of the lumbar spine." The only positive laboratory finding was the sedimentation rate which was 20 mm. in 60 minutes. Myelogram was not deemed indicated and she was dismissed, to be observed as an outpatient, on the sixth hospital day.

Her second admission was on February 6, 1956, just four days after she was discharged. This time she had chills and fever in addition to her previous complaints. She also had leukopenia (2,250) and granulocytopenia (polymorphonuclears 54 per cent and leukocytes 47 per cent). She ran a septic type of temperature for eight days. Repeated smears for malaria, and blood, urine and stool cultures were negative for pathogens and parasites. L E phenomenon, bone marrow studies, intravenous pyelography, barium enema and chest x-rays were negative. Routine and brucellosis agglutination tests and Weil-Felix reaction were within normal range. Urine porphyrins were negative but Heterophil agglutination rose from 1:112 on February 10 to 1:896 on February 14. Since no other agglutination tests were positive, this was interpreted not to be merely an anamnestic reaction. Incidentally, tuberculin skin test (first strength) was strongly positive and histoplasmosis skin test negative. She was dismissed improved with the final diagnosis of infectious mononucleosis.

Her third admission was in September 1956 for excision of a submandibular lymph node of a week's duration and which the pathologist reported as granulomatous lymph node, questionably tuberculous.

She was admitted for the fourth time (present admission) on October 7, 1956, with a mass in the right lower abdominal quadrant which the roentgenologist reported as an iliopsoas abscess in view of the obliteration of the right psoas shadow, the vague tissue density in the right lower abdominal quadrant and the thinning of the L 3 interspace which showed appreciable change since the last examination.

She had had two lumbar drainages of the abscess through a lumbar approach and a creamy greenish-yellow viscous fluid was drained each time. Smears and cultures for tubercle bacilli were negative, however, guinea pig studies were reported positive.

The patient was given streptomycin (0.5 gms. daily) and P.A.S. (2 gms. qid) and bed rest regimen.

This case typifies the perplexing problem that may arise in the diagnosis of Pott's disease. It is so rare nowadays that it hardly enters the back of one's mind as the possible cause of low back pain, especially when there is no hint whatsoever of the presence of primary tuberculosis elsewhere in the body at any time.

In retrospect, there is doubt in our minds whether she really had infectious mononucleosis, as was diagnosed on her second admission, or the signs and symptoms she presented then were part and parcel of the tuberculous process she probably had had since the beginning. It is true the Heterophil antibody test was conclusively elevated, however, tuberculosis is one of the few reported entities which cause false positive reactions in this test. The guinea pig kidney absorption and boiled beef antigen absorption tests would have been the answer, for they would have eliminated the possibility of these false positive reactions to the Heterophil antibody test. Perhaps the new ox-cell hemolysin test would have helped too. However, none of these tests were available in our laboratory at the time this situation arose.

TRENDS IN MANAGEMENT

Sir Percival Pott advocated surgical drainage of spinal abscesses in his classical paper entitled, "Remarks on That Kind of Palsy of the Lower Limbs, Which Is Frequently Found to Accompany a Curvature of the Spine and Is Supposed to Be Caused by It, Together With Its Methods of Cure." He also referred to the observations of Hippocrates on the benefit from drainage in similar cases.

In 1892 Menard performed a series of successful costotransversectomies, after he inadvertently opened a paraspinal abscess while performing a thoracic laminectomy for paraplegia, and obtained dramatic results. Vincent of France (1882), Clark of England (1903) and Weirschew of Poland (1908) also obtained favorable results from direct attack upon the spinal lesion. Because of the excessive mortality rate that resulted from the almost inevitable secondary infection the operation fell into disfavor. Ely quoted Calot in 1911 as saying, "To open an abscess for tuberculosis of the spine, or to permit it to burst, is an open door through which death almost always enters." In 1916 Elsberg suggested that operative treatment should be performed only after conservative treatment had failed. After the work of Albee and Hibbs, a technic was perfected for the performance of spinal fusion. In 1931 Girdlestone restored interest in direct surgical attack of spinal abscesses.

"Direct attack on a focus of tuberculous disease had been an accepted method of approach when it was, or appeared to be, possible to excise completely the diseased organ or tissue. When removal was not possible, the indication of early surgery was less clearly defined and less generally accepted. The risks of general dissemination of the disease and the formation of sinuses were strong deterrents to adventurous surgery. These two possible complications which were perhaps over emphasized in the past, may now be of less importance since the introduction of the antibiotics." Bosworth advocated the evacuation of massive collection of tuberculous debris as a means of securing more rapid healing of the disease.

Of the numerous antituberculous drugs, streptomycin in any form, P.A.S. and isonicotinic acid hydrazid stand unchallenged. It is generally agreed that P.A.S. and streptomycin should not be given alone and isoniazid is usually given in combination with another drug. Because of the fact that the development of bacterial resistance to isoniazid does not seem to have the same clinical significance as resistance to streptomycin, there are those in the minority opinion who believe that isoniazid alone is useful under certain conditions. Triple drug treatment, i.e., streptomycin, P.A.S. and isoniazid combined, seems to have no advantage in the treatment of uncomplicated tuberculosis, albeit indicated in the treatment of meningitis. Ebert is of the opinion that isoniazid should always be included in the treatment of the more dangerous form. Long term chemotherapy is superior to treatment for short periods as was shown by the cooperative trials by the V. A., Army and Navy. It is their suggestion that chemotherapeutic management should be continued for at least a year and more often eighteen months, or even longer. Irrespective of the duration of treatment it is accepted that the uninterrupted form of administration is more effective than the intermittent method in the chemotherapy of tuberculosis. Hinshaw, writing an editorial on the progress report of the V. A., Army and Navy, believes that the daily administration of streptomycin again appears to offer advantages over twice weekly administration when this drug is combined with isoniazid. Smith considers the experience with the combined isoniazid-streptomycin regimen too short for any final opinion with regard to their role in the treatment of tuberculosis. But he goes on to say that they undoubtedly exert a beneficial effect which is even more striking in some active severe cases. In the main, however, these drugs are not adequate treatment by themselves. They should be used as an adjunct to surgery.

Campos stipulated the conditions for operation as follow: "Good general condition, prolonged apyrexia, roentgenographic evidence of focal stability, or better, of a lesion progressively improving, are clinical signs for surgery. The clinical findings must be confirmed by repeated blood counts. The careful study of repeated hemograms is extremely important and has been our best guide in dealing with tuberculosis for the last four years. Hemoglobin and red blood cells must be normal or not too low. Changes of white blood cells are of great significance. They constitute a sensitive indication in determining the evolution of the different stages of tuberculous infection. Considerable emphasis is placed on the relation between monocytes and lymphocytes. Confirmed high lymphocyte count and low monocyte count is an indication of high resistance of the host and low lymphocyte count with high monocyte count is an indication of low resistance. The ratio $\frac{L}{M}$ must be 5 or better." He noted complications when the ratio was below 5. He relies more on this ratio than on the sedimentation rate. His last criteria was just handed down from the works of Cunningham, et al., published in the *Bulletin of Johns Hopkins Hospital.*

The surgical treatment boils down to the performance of spinal fusion with or without laminectomy or curettage or both. Eichenholtz and Mayer in a series of sixty-eight cases obtained 44 per cent successful fusion after the primary procedure. Nevertheless, this rose to 85 per cent after repair of the pseudoarthrosis of the back bones which results from failure of the primary fusion. The marked virulence of the infecting organism or the overwhelming disease in patients with low resistance were also blamed for the failures of fusion. Hallock and Jones are of the opinion that to be more efficacious spine fusion should be performed early in the course of the disease before the development of abscesses or of paraplegia; but it is still of great value and should not be withheld even after such complications have developed.

"The results of treatment by conservative measures, including spinal fusion after the disease has been arrested, leave much to be desired, but they have been better than those produced by any other method up to the present. The principle drawback has been the long period of treatment required with its inevitable mental and physical trauma."

BIBLIOGRAPHY

West: Tuberculosis of the Bones and Joints, Christopher's Textbook of Surgery, 6th ed.

Svein, Ivins and Cooney: Anterior Decompression of the Spinal Cord for Paraplegia Associated With Pott's Disease, Report of Case, Proc. Staff Meet. Mayo Clin. June, 1954.

Boyd: Textbook of Pathology, 3rd ed.

Sturgis: Hematology, 2nd. ed.

Campos: Bone and Joint Tuberculosis and Its Treatment, J. Bone & Joint Surg. October, 1955.

Eichenholtz and Mayer: Homogenous Bone Grafts in Spine Fusions for Tuberculosis, J. Bone & Joint Surg. April, 1955.

Hallock and Jones: Tuberculosis of the Spine, J. Bone & Joint Surg. April, 1954.

Editorials and Annotations: Treatment of Tuberculosis of the Spine, J. Bone & Joint Surg. August, 1955.

Johnson, Hillman and Southwick: The Importance of Direct Surgical Attack Upon Lesions of the Vertebral Bodies, Particularly in Pott's Disease, J. Bone & Joint Surg. January, 1953.

Bosworth and Wright: Streptomycin in Bone and Joint Tuberculosis, J. Bone & Joint Surg. April, 1952.

Smith: Treatment of Bone Tuberculosis, J. Bone & Joint Surg. December, 1955.

Ebert: Present Status of the Chemotherapy of Tuberculosis, Am. J. Med. **18**:1955.

Weir: Present Status of the Treatment of Tuberculosis, J.A.M.A. Sept. 29, 1956.

Case Report

Q-Fever Acquired in Greece

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MUCH OF THE enjoyment of clinical medicine lies in the infrequent opportunity to diagnose a rare disease, or to observe an illness which rarely occurs in the geographical area within which the physician practices. It was the authors' recent opportunity to observe and diagnose a case of Q-fever in Kansas City. As will be seen, the illness was probably acquired in a foreign country but became manifest here. The apparent rarity of Q-fever in the Kansas City area makes this case perhaps of unusual interest; in addition, because the case reemphasizes the various diagnostic possibilities in a patient with a pulmonary infiltrate, we should like to submit this case report.

CASE REPORT

The patient was a 56 year old white male whose only major illness in the past was an episode of appendicitis with perforation in 1954. His occupation, that of consulting civil engineer, necessitated a trip to Greece in January and February of 1956. He flew to Athens from New York by way of Rome, arriving in Athens on January 24. The engineering problem under study required two brief trips to some lakes situated about 60 miles north of Athens. On each of these trips he was in fairly close contact with flocks of sheep and goats. Adjacent to his temporary office in Athens were many market stalls to which produce from rural areas was brought. Finally, he partook of some white cheese which was made from sheep's milk. Thus, there was ample source of possible contact with the causative organism of Q-fever. While on the trip, he had a moderate head and chest cold and noted some transient diarrhea; in all other respects, he felt quite well. He departed from Athens on February 11, and arrived in Kansas City on February 17, following which he felt quite well until February 21, on which date he had the abrupt onset of chilliness, fever, retro-orbital headache and lumbar backache.

He was first seen at his home on February 23, about forty-eight hours after the onset of his illness. Physical examination at that time was entirely normal, except for an oral temperature of 102.8 F. Erythromycin (Ilotycin) was started in a dose of 250 mg. four times daily. Next day, at his home, reexamination revealed the presence of crepitant inspiratory rales at the left lung base. He was hospitalized the same day, his symptoms still being those of fever, malaise and retro-orbital headaches. At no time in his illness did he have cough or chest pain. On the second hospital day, erythromycin was discontinued; and tetracycline (Achromycin) was started in a dose of 250 mg. fours times daily. The patient was afebrile within twenty-four hours and he rapidly became asymptomatic. Laboratory work revealed a normal hemoglobin and red cell count. There was a transient leukopenia of 4,200 and 3,900 with a normal differential count; at the time of discharge from the hospital, the white count was 7,000 with normal differential. Urinalysis was normal except for a trace of albumin. Sedimentation rate was 12 mm/hr. Serology was normal. Cold agglutinins were negative, as were agglutination titers against brucella abortus, typhoid O and H and paratyphoid A and B. An electrocardiogram was within normal limits. Chest film on the day of hospitalization revealed an ill defined hazy density in the left lower lobe. This patchy pneumonitis showed slow but eventually complete resolution. Acute and convalescent serum specimens were sent (on March 1 and March 10) to the Department of Medical Microbiology of the University of Kansas Medical Center for determination of complement fixing titers against Q-fever and psittacosis. The acute specimen showed a Q-fever complement fixation titer of 1 to 4, the convalescent specimen a titer of 1 to 32. Antibody titers for psittacosis were negative. In summary, this patient had an acute febrile illness shortly after his return from an area endemic for Q-fever. The character of the illness, especially the retro-orbital headache and the pneumonitis occurring without upper or lower respiratory tract symptoms, was strongly suggestive of Q-fever; and this clinical diagnosis was confirmed by serologic study. The patient has remained quite asymptomatic. He was hospitalized for only eight days, although the pneumonitis did not entirely clear (by x-ray study) until April, two months after his acute illness.

DISCUSSION

Q-fever was first described in Australia in 1935. It is an acute, self limited illness, rarely fatal, characterized by an abrupt onset with high fever, headache and usually a pneumonitis which may be unsuspected until demonstrated by chest x-ray. The disease is caused by the microorganism Coxiella burneti, which has been classified with the rickettsiae. Q-fever has an extensive geographic distribution, having been discovered first in Australia and reported subsequently in the United States, Panama, Europe, the Middle East, North and Central Africa. There were more than one thousand cases of Q-fever in Allied military personnel in the Mediterranean theater during World War II. The distribution in the United States has included California, Montana, Texas and Illinois. The Q-fever organisms are found in certain ticks and in rodents, although human infection from tick bite and rodent bite is apparently rare. Ticks probably do transmit the disease to domestic animals, and the organisms are readily found in the milk of naturally infected cattle, goats and sheep. These domestic animals, although infected, do not become ill. Pasteurization is not completely effective in eliminating C. burneti from heavily contaminated milk, and butter from such milk may contain viable organisms. Patient to patient transmission is rare. Human infection is acquired usually by the inhalation of dust particles bearing the microorganisms and also by the ingestion of contaminated milk, butter and cheese. Laboratory personnel are readily infected in the handling of blood, urine or sputum of patients with Q-fever.

Q-fever has an incubation period of fifteen to twenty days and is characterized, as in our patient, by the abrupt onset of chilliness, fever, malaise, muscle aches and a severe headache which is typically retro-orbital. The fever persists for a few days in mild cases but may last for as long as two weeks in more severely ill patients. About half the patients develop a cough which is either dry or slightly productive. Physical examination generally reveals no positive findings relative to the illness itself, except that rales may be audible over the areas of pneumonitis. Despite the minimal or absent respiratory tract symptoms and signs, nearly all cases will show, on chest x-ray, evidence of pneumonitis. Typically, there is a single small patchy area of consolidation involving only a portion of one of the lower lobes. However, the consolidated areas may be multiple and may occur in any lobe. Q-fever, incidentally, is the only rickettsial illness in which a rash does not occur.

Laboratory studies reveal nothing diagnostic in the blood count or urinalysis; leukopenia and slight albuminuria may be present. The sedimentation rate may be normal or elevated. Cold agglutinins are absent, helping to rule out the diagnosis of primary atypical pneumonia. Of considerable help is the fact that the agglutination test for the Proteus group (Weil-Felix reaction) is negative in Q-fever. Positive diagnosis rests on the finding, in the serum, of a significant rise in the complement fixation titer against Q-fever antigen. A serum specimen should be drawn early in the illness and again ten days later so that "acute and convalescent" titers can be determined. In our patient, the testing was done in the laboratory of the Department of Microbiology at the University of Kansas Medical Center. (Presumably, in Missouri, the acute and convalescent serum specimens could be sent to the State Division of Health in Jefferson City.) As noted previously, the organisms can be demonstrated in the urine, blood and sputum of patients; however, because of the danger to laboratory personnel, no attempt to isolate the organism should be made and the diagnosis should be confirmed only by serologic studies.

The diagnosis of Q-fever, then, should be suspected in a patient who has a febrile illness with severe headache (especially retro-orbital in location) and a pneumonitis (especially in the absence of any respiratory tract symptoms). The diagnosis is strengthened by a prompt response to treatment with chloramphenicol or one of the tetracycline drugs. Confirmation of the diagnosis consists in the demonstration of complement fixing antibodies in significant titer. A single titer of 1:32 is diagnostic, as is any threefold rise in titer between the acute and convalescent specimens.

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BIBLIOGRAPHY

1. Snyder, John C., in Cecil & Loeb, Textbook of Medicine, 9th ed., 1955.
2. Berge, T. O., and Leurette, E. H.: World Distribution of Q-fever: Human, Animal and Arthropod Infection, Am. J. Hyg. **57**:125, 1953.
3. Robbins, F. C.: Q-fever, Clinical Features, in Rickettsial Diseases of Man, American Association for the Advancement of Science, 1948, p. 160.
4. Borglow, David R., in Tice, Practice of Medicine, Col. 4.

Special Article

Freedom in Medical Practice

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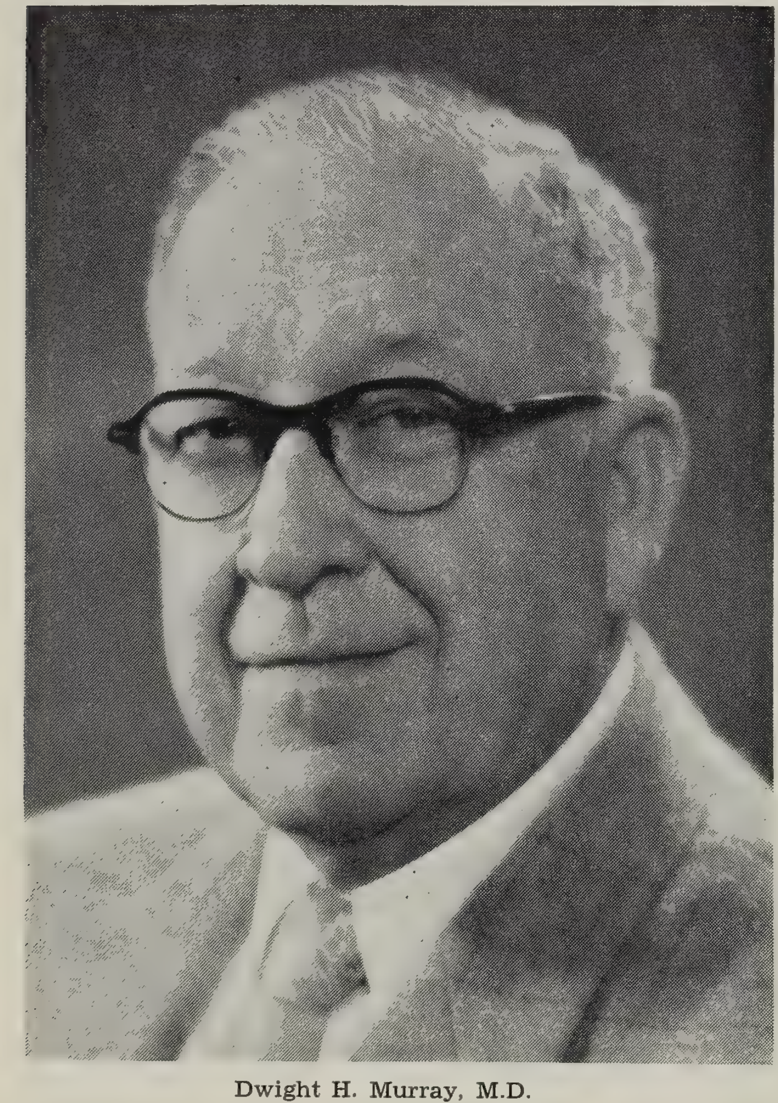
President, American Medical Association

Almost six months have elapsed since we last met to deliberate and act on medical affairs. The time has passed quickly, but not quietly.

The rumble of war and revolution has resounded in our ears. The din from political battles has been deafening.

All of us—sooner or later—learn that today's events do not just swirl around us, but involve each of us. As doctors we cannot get away from them by claiming that our only interest is in the sick, and that we cannot be bothered by political, social and economic problems. These matters demand attention from the doctor as well as the lawyer, the businessman, the newspaper editor, the labor leader and the worker.



Dwight H. Murray, M.D.

If we are concerned about what happens on the international, national and local fronts—and we should be—then certainly we cannot afford to be disinterested in what happens in our own area of health and medical affairs. Yet there is apathy in our ranks.

REPLACE APATHY WITH ACTIVE, UNITED PROFESSION

Today there is a greater need for a united, forceful and informed profession than ever before. We have been caught in the throes of a social revolution which demanded something for nothing. Changes have been taking place all around us, and medicine has not escaped unscathed.

For example, in a few days Public Law 569, the bill providing medical care for military dependents, becomes effective throughout the land. Contracts already have been signed with the government by the majority of our state societies. No longer can any doctor claim that this law does not affect him. No longer can he say that government laws really are not changing the practice of medicine.

Public Law 880, better known to all of us as H.R. 7225, is another case in point. Medicine now is facing the problem of protecting the taxpaying public from abuses and of cooperating with the government to carry out the provisions of the law. The law is now on the books, and we must provide the leadership necessary to make it work as well as possible.

It was encouraging to hear Ezra Taft Benson, secretary of agriculture, say last week before the American Association of Land Grant Colleges and Universities:

"Sooner or later, the accumulation of power in a central government leads to a loss of freedom. . . . Raids on the federal treasury can be all too readily accomplished by an organized few over the feeble protests of an apathetic majority. With more and more activity centered in the federal government, the relationship between the cost and the benefits of government programs becomes obscure. What follows is the voting of public money without having to accept direct local responsibility for higher taxes. . . .

"If the present shift of power from state to federal authority which started twenty-five years ago is allowed to continue, the states may be left hollow shells."

It was encouraging to hear such comments from a member of the President's Cabinet. I only wish that all members of the official family, and more important, every member of the United States Congress, felt the same way.

The expression of this philosophy, with which medicine so heartily agrees, sounds good, but put-

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Delivered at the opening session of the House of Delegates at the clinical meeting of the American Medical Association in Seattle, Washington, November 27, 1956.

ting it into practice is the thing we are really interested in.

Today the medical profession along with business and industry is caught between those who desire to promote sound government and those who desire even more intensely to perpetuate party power. Unfortunately, in recent years a benevolent federal government appears more attractive to the voting public than the preservation of individual freedom. Medicine must do its utmost to reverse this trend.

MEDICAL FREEDOM ESSENTIAL

In my travels around the country as your representative the last eighteen months, I have seen little dissension or rancor within our ranks. However, I must report that I have seen too much complacency over governmental encroachment into medical affairs. And I am deadly serious when I say to you that apathy by the few, or by the many, can be detrimental to all.

No nation can merely reap the benefits of freedom; it also must sow seeds of freedom.

In medicine the situation is the same. If an apathetic medical profession takes its freedom for granted, it will be the beginning of the end. A strong, free profession must work for freedom so that it may live in freedom. And history tells us that once medicine loses its freedom, other fields of private endeavor are immediately in danger.

I do not wish to paint a dark or distorted picture of medicine's free status and its stature in America today. But I do believe words of caution and an appeal for vigilance are in order.

The road of apathy and disunity can only lead to disorder and perhaps disintegration, and we must sound a warning to all our colleagues who do not care, or who are pulling in the opposite direction. The road of alertness, action and unity is the proper road for all of us to be traveling together.

If I had just one wish for the coming year, it would be to command the time and talents of the 160,000 physicians in the American Medical Association. I would set us all to the task of emphasizing and reemphasizing the absolute necessity of patient and professional freedom.

PATIENT'S RIGHT TO CHOOSE HIS DOCTOR

I believe it is one of our prime responsibilities to prove to our patients that their right to choose their doctor is a most important one.

Free choice brings a bond of confidence between doctor and patient which no compulsory medical system can create. It means that the patient knows the physician will be interested in him as a person, not as just a serial number of the 2:45 appendicitis case.

For the doctor free choice means that the patient has selected him for his abilities, training, sincerity and personality. When a patient comes into my office, I know he has made a choice. And from that moment there begins a physician-patient relationship of the highest order. To me the patient is someone special, and I in turn hope I am someone special to him.

Once the patient has made his choice, the physician automatically assumes an unqualified responsibility to the patient. No system of medical care that uses a third party to bring doctor and patient together can match our kind of cooperative performance for the treatment of illness, the cure of disease and the betterment of the patient's health.

Freedom to select a doctor is part of everyone's great freedom to choose—to choose what he wears and eats; where he works and worships, and how he votes. Take away any part of this freedom and great damage is done to our democratic system.

FREE CONDUCT IN MEDICAL TREATMENT

Another freedom closely tied to freedom of choice is freedom in the conduct of medical treatment.

At the recent meeting of the World Medical Association in Havana, Cuba, Dr. Rolf Schloegell of Germany made a stirring defense of free conduct of medical treatment. He told us that the medical profession believes the attending physician alone is competent to decide what measures he deems necessary and will apply in order to bring about the desired improvement. He warned too of the danger of excessive restriction on the freedom of the patient and the attending doctor.

Yet the trend toward extending social security in the medical care field has been steady and has accelerated since the end of World War II.

The dangers of shifting responsibilities for medical care from the patient and doctor to the government are obvious. The caliber of medical care cannot be as high when both patient and doctor are dependent upon government. Initiative succumbs to dictation, and self-reliance is replaced by the crutch of government.

We do not deny that there is an area of legitimate concern by the government for the health and welfare of the people. But each year government seems to extend that area. We get some idea of this expansion from the new federal medical budget.

This year, according to our Washington Office, the average family will be paying $54.61 for the U. S. Government's health and medical activities. And the total expenditures this year amount to 2½ billion dollars—290 millions more than last year. Even in an over-all federal budget of 61 billion dollars, the total health cost of 2½ billions is not insignificant. It is a billion dollars more than the cost of running the Commerce Department, half a billion more than the Agriculture Department and six times more than the Interior Department's budget.

Many expenditures obviously are necessary to keep up our unsurpassed public health standards, and research may pay rich dividends in scientific discoveries. But there is no doubt but that much money is being spent on medical activities that should not involve government participation.

The trend is to spend more and more government money on health and medical matters because it is good politics. Apparently many Americans still want to see government in the role of a big brother, dishing out so-called gifts and bargains under the guise of benevolent economic planning.

I believe it is our duty, as it is everyone else's, to combat the attitude of "what's in it for me?" and to promote the long honored creed of "what's best for all Americans and our free society?" I think that a nation can drift into state medicine inch by inch just as surely as if the scheme were foisted upon a people overnight. The "drift" method may take longer but the result will be the same.

So it is time all of us sounded the alarm against soft and superficial security and against the invasion of personal responsibility. It is time we stood up together for militant freedom and for full rights and responsibilities of the individual.

BELGIAN DOCTORS TURN BACK GOVERNMENT

There is no better example of what a unified medical profession can do than in the story of the recent fight of the Belgian doctors' against the government's proposals for a state service of medicine.

Without consulting the medical profession the Belgian government proceeded to draft rules and regulations of health to be incorporated in the nation's social security legislation. Under the proposals doctors were to sign an agreement to abide by the present rules and any later regulations. For the patient there would be the usual red tape in getting medical care.

When the Belgian doctors learned of the scheme, they met in conference with the government. They told the government what they wanted and what they would not accept. The government agreed.

For several months everything was quiet. Then the Belgian doctors suddenly read about the new health bill that the government was sending to Parliament. It was quite contrary to the earlier agreement worked out by the profession and the government. But the bill was passed quickly.

The Belgian medical profession protested and said it would not be placed under the Ministry of Labor. Instead the doctors proposed to set up their own plan of medical assistance.

Before long, the government saw that the medical profession meant business and that the doctor's plan was an attractive one. So it declared that its own bill was not in force and could not be in force without the consent of the medical profession.

To me this fight against legislative intervention in medical care is excellent evidence that the profession can defend itself if it unites to defend the basic principles of freedom and if it offers constructive proposals. By using the Belgian national motto, "in union there is strength," the medical profession showed doctors everywhere that dangerous government plans can be turned aside by the strong.

I also read recently in the *Journal of the World Medical Association* of the fight of the medical profession of Malta against a British government scheme to introduce a full-time salaried medical service, without the right of private practice, on an island dependency of Malta. Here again the doctors reacted with unity and strength and successfully thwarted the government's plan.

There is a lesson in these stories from Belgium and Malta. They prove that a unified profession has a great political power for good—the good of the patient, the doctors and the nation.

CONFIDENCE AND UNDERSTANDING NEEDED

While we are developing unity within our own ranks, I believe it is equally important to continue to build up the confidence and respect of our patients and to make our legislators aware of the necessity for freedom in medical practice.

Let us never reduce the quality of service we render to our patients, and never lose the personal touch in medicine. Where there is any opportunity to improve upon our medical care, let us seize it and show our abilities to do an outstanding job. Satisfied patient-customers will give us deserving support when we need it.

We also should realize that the destiny of medicine can be determined to a large degree in the halls of Congress. If this be true, then it is even more important that we take an even greater interest in those who elect the Congressman. Sympathetic understanding of our position by federal legislators through the voting public will be an insurmountable deterrent to the forces supporting state medicine.

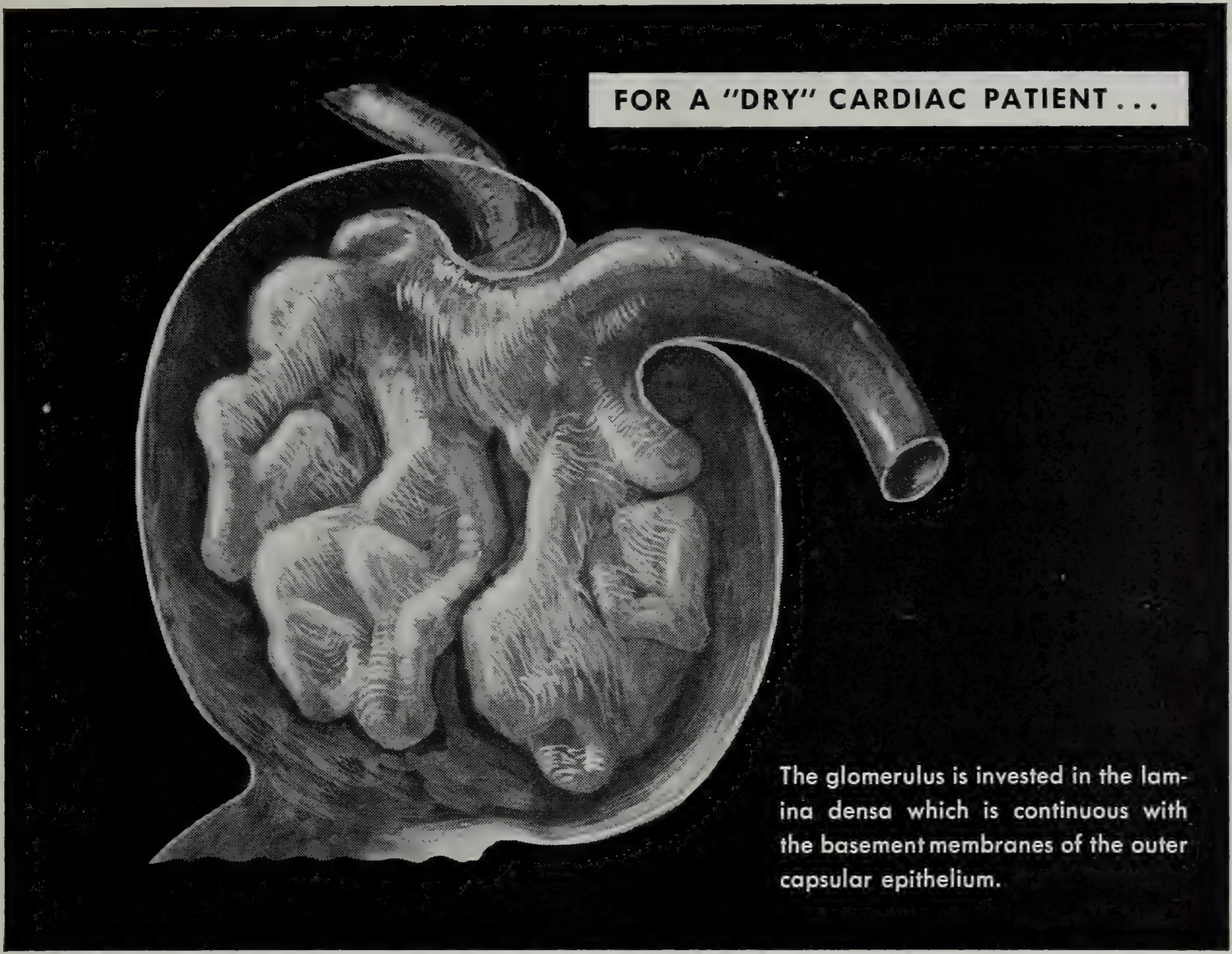
The day has come, gentlemen, when we can no longer look upon medical economics and social changes merely as issues to be considered during our limited leisure hours. Our interest in them cannot be superficial or intermittent.

We now must pay daily attention to these matters. Medical socio-economic affairs can no longer be just incidental with us. They must be a vital part of our life and of our profession.

Each of us, I believe, should dedicate himself to the words included in the oath of office taken by Presidents of the A.M.A.

"I shall champion the cause of freedom in medical practice and freedom for all my fellow Americans."

As doctors, representatives to the A.M.A. and as spokesmen for the A.M.A., let's remember these words and live by them. And to alter a phrase of President Lincoln's only slightly: Let's make common cause to keep the good ship of medical freedom on this voyage, or nobody will have a chance to pilot her on another voyage.



FOR A "DRY" CARDIAC PATIENT . . .

The glomerulus is invested in the lamina densa which is continuous with the basement membranes of the outer capsular epithelium.

Illustration by Hans Elias

Rolicton® Diuresis Maintains Continuous Edema Control

The efficacy of Rolicton (brand of amisometradine) in maintaining diuresis in the edematous patient has been established on an average dosage of one tablet b.i.d. Larger doses may be given as initial therapy and as maintenance therapy in edema difficult to control. Many patients will respond to one tablet daily.

"The margin of safety and the diuretic index is certainly an improvement over the use of oral mercurial diuretics."[1]

Avoiding "Peaks and Valleys"

A highly desirable effect, and one which has been made possible with Rolicton, is the maintenance of continuous diuretic effectiveness day after day over an extended period, to avoid the up-and-down weight pattern typical of other edema-control methods.

"There was an obvious stabilization of weight in practically all of the patients under observation, and previous wide fluctuations in poundage disappeared."[2]

Mercury-Sparing

Typical of the Rolicton diuresis pattern is the ability of the drug to reduce and, in a large percentage of patients, to eliminate the need for mercurials parenterally.

". . . the drug represents a most useful addition to our armamentarium in the treatment of edema, not only because it can be given orally . . . but more so because it permits [us] to replace or to spare the . . . mercurials."[3]

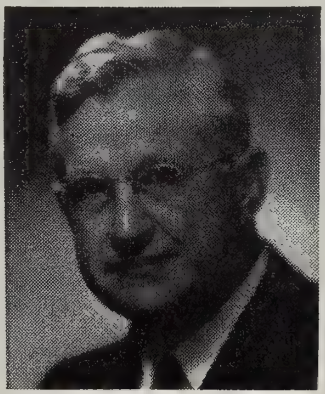
G. D. Searle & Co., Chicago 80, Illinois.
Research in the Service of Medicine.

1. Asher, G.: Personal communication, June 23, 1956.
2. Settel, E.: A Clinical Evaluation of a New Oral Diuretic, Rolicton, Postgrad. Med., Feb. 1957, in press.
3. Goldner, M. G.: Personal communication, June 29, 1956.

SEARLE

President's Page

Much has been written about Public Law 880, formerly H. R. 7225. Perhaps, however, not enough has been written or said about one section of the act which provides federal matching grants to the states. These grants will be administered in Missouri by the State Department of Welfare. The law provides that for every dollar appropriated by the state up to $3.00 per month per recipient, the federal government will match it. The combined pool will then be paid to the vendors of medical care. The vendors are physicians, hospitals, druggists, nurses, dentists and such.



The Director of Welfare of Missouri, Mr. Proctor N. Carter, has furnished information to the Association Committee on Medical Economics relative to the persons now receiving public assistance from combined state and federal grants. "If the Missouri case load estimates are applied, there could be a total of $28,000,000 available for a medical care program for the biennium period beginning July 1, 1957, and ending June 30, 1959, one half being from state funds and the remainder from federal funds. These figures are maximum amounts depending entirely upon appropriations by the state Legislature and upon the actual monthly expenditures for medical care purposes."

Implementing state legislation, no doubt, will have been submitted by the time of this publication. It is expected that the legislation will be presented in the Senate. The Committee on Medical Economics has been studying the law and its applicability to the practice of medicine and will report soon to the membership.

Carl Vohs M.D.

KNOX PROTEIN PREVIEWS

Overcoming Today's No. 1 Nutritional Problem

Knox "Food Exchange" Diet Enlists the Cooperation of Your DIABETIC Patients for Dietotherapy

KNOX
UNFLAVORED
32
GELATINE

1. This Knox booklet is based on nutritionally-tested Food Exchanges[1] and demonstrates that variety is possible for diabetic diets.

2. The easy-to-understand Food Exchanges simplify dietary control for the diabetic by eliminating calorie counting.

3. Diets promote accurate adjustment of caloric levels to the special needs of the patient, yet allow each individual considerable latitude in the choice of foods.

4. Each booklet presents in addition 16 pages of appetizing, kitchen-tested recipes.

---

[1] The Food Exchange Lists referred to are based on material in "Meal Planning with Exchange Lists" prepared by Committees of the American Diabetes Association, Inc., and The American Dietetic Association in cooperation with the Chronic Disease Program, Public Health Service, Department of Health, Education and Welfare.

Chas. B. Knox Gelatine Co., Inc.
Professional Service Dept. SJ-22
Johnstown, N. Y.

Please send me .... dozen copies of the Knox diabetic brochure describing the use of Food Exchange Lists.

Your Name and Address

Variety
in Meal Planning
for the
DIABETIC

EDITORIALS

The 69th General Assembly

The Sixty-ninth General Assembly of Missouri convened on January 3. The session, as provided by the Constitution, will last for a period of five months, ending not later than May 31.

The officers of the Senate are: Lieutenant Governor Edward V. Long, Bowling Green, Presiding Officer; Senator Floyd R. Gibson, Dem., Independence, President Pro Tem; Senator George A. Spencer, Dem., Columbia, Majority Floor Leader; Senator Hartwell G. Crain, Rep., St. Louis County, Minority Floor Leader.

The officers of the House are: Roy Hamlin, Dem., Hannibal, Speaker; Richard H. Ichord, Dem., Houston, Speaker Pro Tem; Warren E. Hearnes, Dem., East Prairie, Majority Floor Leader; A. Clifford Jones, Rep., St. Louis County, Minority Floor Leader.

Members of the Senate Committee on Public Health are: A. M. Spradling, Jr., Dem., Cape Girardeau, Chairman; John W. Noble, Dem., Kennett; Michael Kinney, Dem., St. Louis; Edward J. Hogan, Dem., St. Louis; William B. Waters, Dem., Liberty; William E. Hilsman, Dem., St. Louis; Jack S. Curtis, Rep., Springfield; Robert H. Linneman, Rep., St. Charles; Vincent E. Baker, Rep., Kansas City; Harry E. Hatcher, Rep., Granby, and Noel Cox, Rep., Spokane.

Members of the House Committee on Public Health are: Joseph W. Beckerle, Dem., 5th Dist., St. Louis, Chairman; Charles H. Pulis, Dem., Mexico, Vice Chairman; Charles B. James, Dem., Clarkton; Frank C. Mazzuca, Dem., Kansas City; J. McKinley Neal, Dem., Kansas City; Anthony D. Pickrell, Dem., Kansas City; Ralph Wigfield, Dem., Chillicothe; Basil V. Jones, Dem., Pleasant Hill; Mrs. Agnes Moore, Dem., Ste. Genevieve; Evelyn G. Stone, Dem., St. Louis; Earl S. Cook, Rep., Trenton; Fred R. McMahon, Rep., Fairfax; John S. Sample, Rep., Mineral Point; Arthur D. Smith, Rep., Webb City; Mrs. Clara Aiken Speer, Rep., Kansas City.

Information concerning pending legislation will be carried regularly in MISSOURI MEDICINE and special bulletins will be sent to all members from time to time.

Iowa Case Settled

A news bulletin from the Iowa State Medical Association gives the highlights of an agreement which has been approved by representatives of the Iowa State Medical Association and the Iowa Hospital Association relative to the controversy existing there over radiology and pathology services.

Highlights of the Agreement

1. There cannot be an employer-employee relationship between a hospital and a physician.
2. Radiology and pathology services are medical services.
3. Bills for radiology and pathology services must be submitted in the physician's name.
4. Radiology and pathology services that have been paid for by Blue Cross in the past will not be paid for by Blue Shield.
5. Hospitals may own and maintain laboratory and x-ray facilities and may operate them within the purview of the joint declaration.
6. Hospitals are to employ technologists and technicians unless it is mutually agreed otherwise.
7. The employment, discharge and disciplining of technologists and technicians and the establishment of fees are to be accomplished by mutual agreement between the doctor and the hospital with the Joint Conference Committee of the hospital resolving any differences.
8. Hospitals are not to interfere with professional medical acts of the doctor or technologists and technicians under his supervision.
9. A contract may be oral or written and shall provide for compensation as agreed to by the parties involved, but any compensation arrangement must conform to the principles contained in the Joint Declaration.
10. By unanimous agreement of the six conferees, the Joint Declaration is limited to resolving problems of radiology and pathology. This grew out of the belief that if agreement could be reached in these specific areas, it would make it easier to resolve other problems that may exist.
11. Local settlement between doctors and hospitals is stipulated in the agreement.

It is believed that the appeal now pending in the State Supreme Court will be dismissed as soon as final arrangements for implementing the Joint Declaration have been completed.

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Trasentine®-Phenobarbital

integrated relief . . .
mild sedation
visceral spasmolysis
mucosal analgesia

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Summit, N. J.

TABLETS *(yellow, coated), each containing 50 mg. Trasentine® hydrochloride (adiphenine hydrochloride CIBA) and 20 mg. phenobarbital.*

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Musings of the Field Secretary

The Committee on Rural Medical Service has started a new project. With cooperation of the Council on Rural Health of the A.M.A., it has established a health column service for one of Missouri's leading state farm papers, *Missouri Ruralist.*

Original articles of practical information on health matters of interest to form people have been prepared by physicians throughout the country for the A.M.A. Council on Rural Health. After approval by the Council, these articles are offered to our Rural Medical Service Committee for publication in one state wide Missouri farm magazine.

Contact has been made with Mr. Cordell W. Tindall, Fayette, Editor of *Missouri Ruralist,* who gladly accepted this health column service for benefit of some 133,000 farm families receiving the semimonthly publication of this interesting farm magazine.

The first of the health series articles was published in the December 8, 1956, issue of *Missouri Ruralist,* under the title "Just What Is This Trouble Called Coronary Heart Disease?"

Other health column articles for future publication in the magazine will deal with diets, eyesight, arthritis, burns, neuralgia, gall bladder disorders and colds.

A 16 millimeter sound print of the movie entitled "The Case of the Doubting Doctor" is available at the State Association headquarters office for loan to County Medical Societies. Please make your requests for the film as far ahead of showing as possible. This film is designed to set forth the many services of the A.M.A. and to show the sound values of A.M.A. membership to the individual doctor as well as to the profession as a whole.

The Buchanan County Medical Society and the St. Joseph Bar Association held a joint dinner meeting at the Robidoux Hotel in St. Joseph, Wednesday night, November 14. There were 112 attending, about half from each profession.

In addition to these two groups, the heads of the local newspaper, radio and TV stations were invited guests.

The main program speaker was Mr. Bernard D. Hirsh, a lawyer from the staff of the A.M.A. Legal Department. He discussed codes of agreement and mutual problems of the two professions. An amiable question and answer session followed the talk.

I am informed that many of those present have expressed a desire that such a meeting be made an annual event. It is further believed that better relations have been established and a code of agreement between the two groups may result.

Last May 25, 1956, a joint meeting of the Greene County Bar Association and the Greene County Medical Society was held in Springfield.

Mr. George E. Hall, Staff Associate of the Legal Department of the A.M.A., spoke to the group on "Medico-Legal Problems."

Following this session, both the Bar Association and Medical Society appointed committees to develop a "Code of Cooperation" or "Standards of Practice," which would be beneficial to members of both professions.

The Greene County Medical Society Committee presented a proposed "Standards of Practice" to the December 28, 1956, meeting of the Society for its consideration.

On Thursday afternoon, December 6, along with the rain, I dropped into Columbia and attended the Medical Postgraduate Session at the new M. U. Medical Center.

From 3:00 to 4:00 p.m., a panel discussion on "Fever of Undetermined Origin" was presented by Dr. William Sodeman, of the Department of Medicine, and Dr. C. E. Brooke, of the Department of Pediatrics.

From 4:00 to 5:00 p.m., a Correlative Clinic on "Peptic Ulcer" was held. Those participating in this clinic were doctors from the following departments: Medicine, Surgery, Radiology and Psychiatry. A hospitalized ulcer patient was presented and used as the basis for the discussion.

In addition to members of the Medical School Staff and students, a number (too few) of doctors from surrounding towns were in attendance. Some of these visiting physicians had also attended the two PG sessions in November and were enthusiastic about the values of these sessions to the practicing physician.

The Postgraduate Committee of the Medical School arranges two of these postgraduate 3:00 to 5:00 Thursday afternoon sessions per month. Doctor, you are invited to attend these programs!

DEATHS

Cardwell, Clarence, M.D., Stella, a graduate of the National University of Arts and Sciences, 1916; member of the Ozarks County Medical Society; aged 64; died November 29.

Hennerich, Walter E., M.D., St. Louis, a graduate of Washington University School of Medicine, 1916; member of the St. Louis Medical Society; aged 67; died December 3.

Evans, Elijah J. E., M.D., Branson, a graduate of the University Medical College of Kansas City, 1908; honor member of Jackson County Medical Society; aged 76; died December 3.

Pulliam, Madison J., M.D., St. Louis, a graduate of the St. Louis University School of Medicine, 1912; member of the St. Louis Medical Society; aged 70; died December 17.

Kells, William Arthur, M.D., Grandview, a graduate of the University of Kansas School of Medicine, 1951; member of the Jackson County Medical Society; aged 34; died December 21.

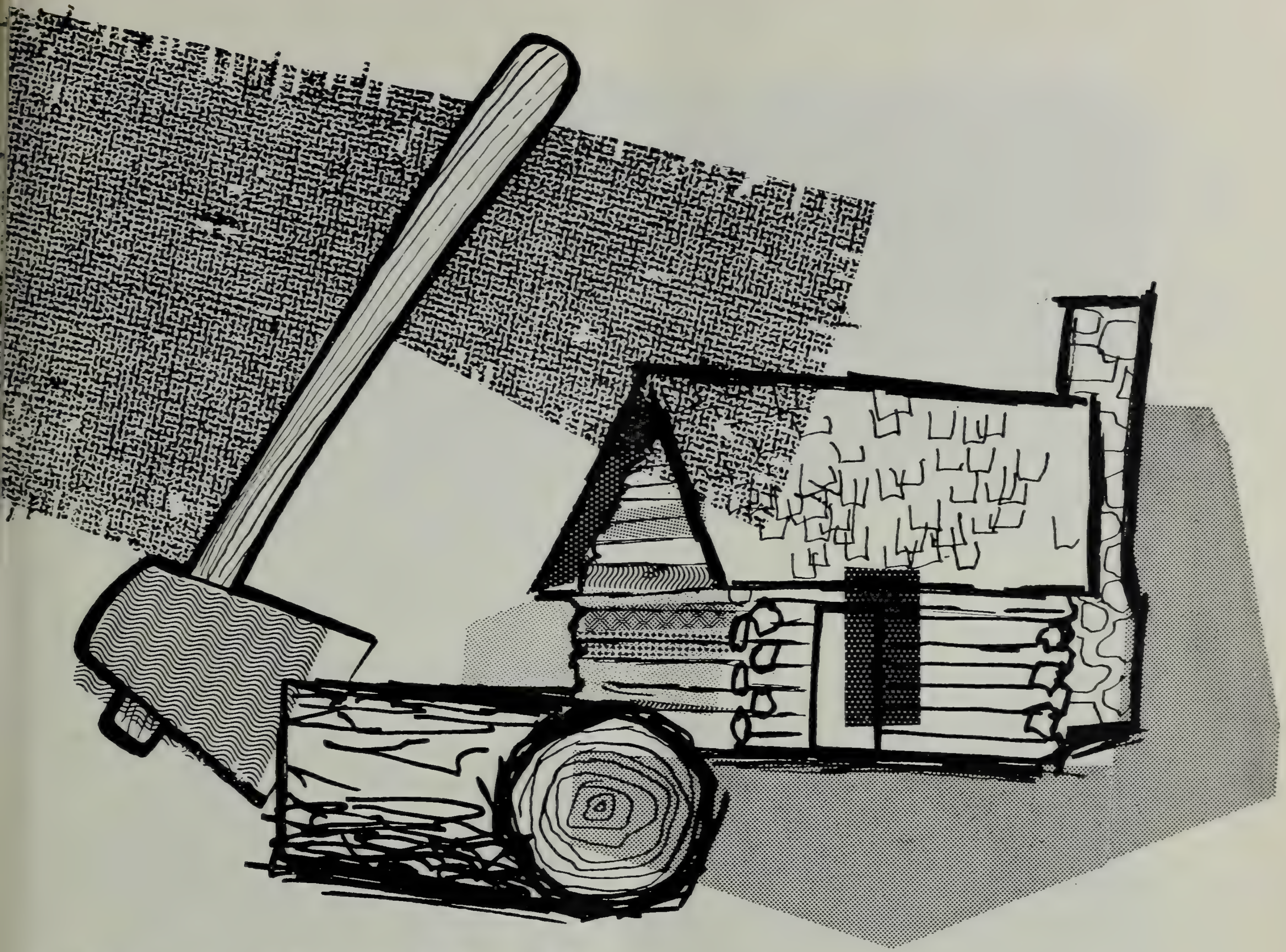
Elman, Robert, M.D., a graduate of Johns Hopkins University School of Medicine, 1922; member of the St. Louis Medical Society; aged 57; died December 23.

Harris, Downey L., M.D., St. Louis, a graduate of the University of Michigan School of Medicine, 1899; honor member of the St. Louis Medical Society; aged 81; died December 23.

Atkins, James A., M.D., Columbia, a graduate of Harvard University School of Medicine, 1932; member of the Boone County Medical Society; aged 49; died December 27.

Bauer, Louis, M.D., St. Louis, a graduate of Washington University School of Medicine, 1930; member of the St. Louis Medical Society; aged 54; died December 29.

Nester, Gerard A., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1933; member of the St. Louis Medical Society; aged 47; died December 30.



From Humble Beginnings...

MEN of character, born in modest circumstances, have become distinguished leaders . . . simple ideas, born of strong faith in a sound purpose, have become great forces for good.

Such an idea was the beginning of Blue Cross and Blue Shield—the idea that people, working together, could solve the pressing problem of financing health care. Through faith and support of doctors, hospitals, and the public, this idea has become the prepayment plan selected by over 53 million people for hospital care, and more than 38 million for professional services.

In little over a quarter-century, Blue Cross and Blue Shield have developed from a simple idea into America's most popular health care prepayment plans—offering protection which doctors can confidently recommend to every patient.

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NON-PROFIT HOSPITAL - MEDICAL - SURGICAL PLAN SPONSORED BY DOCTORS

SAINT LOUIS
KANSAS CITY

News

Guest speaker at the Cooper County Heart Association meeting on January 17 in Boonville was **Thomas W. Burns**, M.D., Columbia, who is doing research work on rheumatic fever on a grant from the association.

New member of the council of the Southern Medical Association from Missouri is **O. P. J. Falk**, M.D., St. Louis, who succeeds **Grayson Carroll**, M.D., St. Louis, who had served the constitutional limit as councilor.

Members of the staff of the VA Hospital, Jefferson Barracks, and members of the St. Louis Society of Neurology and Psychiatry were addressed by Louis B. Newman, M.D., Chicago, recently on "The Role of PM&RS in Neurological Disorders."

Appearing as president of the Laclede County Tuberculosis Association, **J. H. Summers**, M.D., Lebanon, was guest speaker at a meeting of the Kiwanis Club of Lebanon in November.

The Board of Governors of the American College of Surgeons has appointed **William J. Stewart**, M.D., Columbia, to a committee to study the elevation of standards of smaller hospitals.

The Dunklin County Memorial Hospital staff, at its annual meeting in December, reelected **C. R. Peck**, M.D., Kennett, as chief of staff; **George Q. Dunmire**, M.D., vice chief of staff, and **Quinton Tarver**, M.D., secretary.

At a meeting of the Radiological Society of North America in Chicago, December 2 to 7, **C. Edgar Virden**, M.D., Kansas City, was installed as president.

The *Salem Post* of December 6 carried a story with pictures of the return of **Martin M. Hart**, M.D., from two years of service in the U. S. Air Force, and of **Roy Mitchell**, M.D., who moved into a new office upon Dr. Hart's return.

"Modern Treatment in Heart Disease" was discussed by **Allen I. Herman**, M.D., St. Joseph, at the Friday Morning Breakfast Club at a meeting in December.

Speaker at a meeting of the East Central Division of the Missouri Association for Social Welfare held in Fulton in December was **Alfred K. Baur**, M.D., Fulton.

Honored at a dinner given by the Atlas Portland Cement plant in Hannibal in December, was **James C. Chilton**, M.D., Hannibal, who had retired after serving as company physician since 1911.

The Greene County Association for Mental Health had **Henry V. Guhleman**, M.D., Jefferson City, as its principal speaker at its annual meeting on December 6. A special guest at the meeting was **James R. Amos**, M.D., Jefferson City.

Re-elected recently as president of the medical staff of Trinity Lutheran Hospital, Kansas City, was **Herbert H. Shuey**, M.D. **C. Laurence Johnson**, M.D., was elected vice president, and **Franklin C. Werner**, M.D., secretary-treasurer.

Among the ten outstanding men of the year named by the United States Junior Chamber of Commerce, is **Hugh E. Stephenson, Jr.**, M.D., Columbia.

The 125th anniversary of the founding of the Sisters of Mercy order, and the seventy-one years service in Joplin was celebrated by masses in Joplin on December 12.

Officers of the staff of St. Mary's Hospital, Jefferson City, elected in December, are **Henry V. Guhleman**, M.D., president; **G. Donald Shull**, M.D., vice president; **Landon H. Gurnee**, M.D., secretary-treasurer.

Members of the Lions Club of Cape Girardeau were shown a color film on the artifical kidney by **D. Seabaugh**, M.D., Cape Girardeau.

The Menorah Medical Center, Kansas City, awarded a pin to **David Dann**, M.D., on December 21, for his service to the Center since its opening twenty-five years ago.

The Doctor's Day Award, made by the Southern Medical Association at its Washington meeting, was received by the Woman's Auxiliary to the Missouri State Medical Association.

The eighth annual Major G. Seelig lecture at Washington University was presented by Lester R. Dragstedt, M.D., Chicago, on "Duodenal Ulcers."

Recently elected officers of the medical staff of St. Luke's Hospital, Kansas City, are **Ernest L. Glasscock**, M.D., president; **Irwin S. Brown**, M.D., president-elect; **Cameron F. Marshall**, M.D., vice president, and **M. Donald McFarland**, M.D., secretary-treasurer.

The Mercury Club, Kansas City, recently elected **Ralph R. Coffey**, M.D., Kansas City, president.

99TH ANNUAL SESSION
MARCH 31, APRIL 1, 2, 3,
KANSAS CITY
Instruction courses
Excellent speakers
Panels and CPC's
See complete program
on page 150

"Nourish the sapling
to make strong the tree...
What the child is
the man will be."*

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Newest Pablum Cereal is 35% Protein

Pablum High Protein Cereal is derived from soy beans, oats, wheat and dried yeast. This new cereal food contains a level of active assimilable protein, 35%, much higher than that commonly present in cereal grains. It helps to keep baby trim. It satisfies baby's hunger over longer periods of time than even foods rich in carbohydrate.

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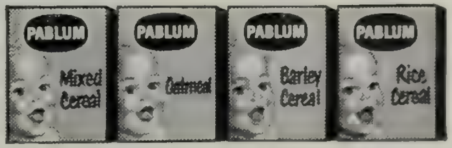
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MISSOURI STATE MEDICAL ASSOCIATION

The 99th Annual Session of the Missouri State Medical Association will be held at the Municipal Auditorium, Kansas City, March 31, April 1, 2 and 3, 1957.

TIME AND PLACE OF MEETINGS

Sunday, March 31

12:00 p. m. Registration for Delegates, Arena, Municipal Auditorium.
1:30 p. m. House of Delegates, Little Theater, Municipal Auditorium.
3:30 p. m. Reference Committees, Municipal Auditorium.
6:00 p. m. Social Hour, Buffet Supper, Entertainment, Woman's Auxiliary, Hotel Muehlebach.

Monday, April 1

8:00 a. m. Registration, Arena, Municipal Auditorium.
8:00 a. m. Motion pictures, Little Theater, Municipal Auditorium.
9:00 a. m. Scientific Session, Little Theater.
10:00 a. m. Intermission to View Exhibits.
10:30 a. m. Scientific Session, Little Theater.
12:00 noon. Committee on Maternal Welfare Luncheon, Muehlebach Hotel.
1:30 p. m. Motion pictures, Little Theater.
2:00 p. m. Scientific Session, Little Theater.
3:30 p. m. Intermission to View Exhibits.
4:00 p. m. House of Delegates, Little Theater.
5:00 p. m. Reference Committees, Municipal Auditorium.

Tuesday, April 2

8:00 a. m. Registration, Arena, Municipal Auditorium.
8:00 a. m. Motion pictures, Little Theater, Municipal Auditorium.
9:00 a. m. Scientific Session, Little Theater.
10:30 a. m. Intermission to View Exhibits.
11:00 a. m. Scientific Session, Little Theater.
12:00 noon. University of Missouri Alumni Luncheon, Muehlebach Hotel.
1:30 p. m. Motion pictures, Little Theater.
2:00 p. m. Scientific Session.
3:30 p. m. Intermission to View Exhibits.
4:00 p. m. Scientific Session.
7:30 p. m. Annual Banquet in Honor of Past Presidents.

Wednesday, April 3

8:00 a. m. Registration, Arena, Municipal Auditorium.
8:00 a. m. Motion pictures, Little Theater, Municipal Auditorium.
9:00 a. m. Scientific Session, Little Theater.
10:30 a. m. Intermission to View Exhibits.
11:00 a. m. Scientific Session, Little Theater.
12:00 noon. Intermission.
1:30 p. m. House of Delegates, Little Theater.

SCIENTIFIC PROGRAM

Monday, April 1, 1957, Little Theater, Municipal Auditorium

8:00 a. m. Motion pictures.
9:00 a. m. Practical Application of the Laboratory in Diabetes Mellitus, Thomas W. Burns, M.D., Columbia.
9:30 a. m. Therapy of Malignant Lyphomas, Henry D. Diamond, M.D., New York, N. Y.
10:00 a. m. Intermission to View Exhibits.
10:30 a. m. Diagnosis and Treatment of Common Skin Disorders, Sture A. M. Johnson, M.D., Madison, Wis.
11:00 a. m. Ovarian Carcinoma: Diagnosis and Treatment, Stuart Abel, M.D., Chicago, Ill.
11:30 a. m. Treatment of Cancer of the Cervix, J. A. del Regato, M.D., Colorado Springs, Colo.

SCIENTIFIC SESSION

1:30 p. m. Motion pictures.
2:00 p. m. Surgical Considerations of Acquired Diseases of the Aorta: Analysis of 500 Cases, Michael E. De Bakey, M.D., Houston, Texas.

2:30 p.m. Panel on Pediatrics, F. R. Crouch, M.D., Farmington, Moderator.
Panelists: Peter G. Danis, M.D., St. Louis.
J. A. Kinder, M.D., Cape Girardeau.
R. B. Anderson, M.D., Kansas City.
Walter R. Hepner, M.D., Columbia.

3:30 p.m. Intermission to View Exhibits.

4:00 p.m. House of Delegates.

SCIENTIFIC SESSION

Tuesday, April 2, 1957, Little Theater, Municipal Auditorium

8:00 a.m. Motion pictures.

9:00 a.m. Instruction Courses (attendance limited to 20 persons each):
The Menopausal Patient, H. C. Willumsen, M.D., St. Joseph
Office Proctology, Mark M. Marks, M.D., Kansas City.
The Neurologic Examination, William P. Williamson, M.D., Kansas City, Kansas.
Electrocardiograph Interpretation, Michael Bernreiter, M.D., Kansas City.
Jaundice, William A. Knight, Jr., M.D., St. Louis.

9:45 a.m. Instruction Courses (attendance limited to 20 persons each):
Hypertension, James Murphy, M.D., St. Louis.
Obstetric Emergencies, J. L. Johnston, M.D., Springfield.
Treatment of Common Foot Conditions, Paul W. Meyer, M.D., Kansas City.
The Patient With a Painful Back, Ralph K. Earp, M.D., St. Louis.
Fluid and Electrolyte Balance, Harry Statland, M.D., Kansas City.

10:30 a.m. Intermission to View Exhibits.

11:00 a.m. Goiter Problems Encountered in Everyday Practice, Robert W. Bartlett, M.D., St. Louis.

11:30 a.m. Medical Problems of the Aging, H. B. Mulholland, M.D., Charlottesville, Va.

SCIENTIFIC SESSION

1:30 p.m. Motion pictures.

2:00 p.m. A Three-fold Division of Medical Care Expenditures, Leonard W. Martin, Chicago, Ill.

2:30 p.m.
Thomas H. Alphin, M. D., Washington, D. C.

3:00 p.m. The Present Status of Anticoagulants, William T. Foley, M.D., New York, N. Y.

3:30 p.m. Intermission to View Exhibits.

4:00 p.m. Clinical Pathologic Conference, Victor B. Buhler, M.D., Kansas City, Moderator.

730 p.m. Annual Banquet in Honor of Past Presidents.

SCIENTIFIC SESSION

Wednesday, April 3, 1957, Little Theater, Municipal Auditorium

8:00 a.m. Motion pictures.

9:00 a.m. Maxillo-facial Injuries, Clifford L. Kiehn, M.D., Cleveland, Ohio.

9:30 a.m. Chest Injuries, John H. Mayer, Jr., M.D., Kansas City.

10:00 a.m. Cord Injuries, George L. Hawkins, Jr., M.D., St. Louis.

10:30 a.m. Intermission to View Exhibits.

11:00 a.m. Panel: The Multiple Injury Patient, O. P. J. Hampton, M.D., St. Louis, Moderator.
Panelists: Howard E. Snyder, M.D., Mayfield, Kansas.
Herbert A. Hamel, M.D., Kansas City.
Leonard T. Furlow, M.D., St. Louis.
Clifford L. Kiehn, M.D., Cleveland.

1:30 p.m. House of Delegates.

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ACHROMYCIN* Tetracycline . . . by demonstrating its clinical competence in the frequently encountered infections has achieved a phenomenal record among antibiotics the world over.

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

In spite of snow, ice and cold weather, the Grand River Medical Society and its Woman's Auxiliary held their annual Christmas party meeting on Thursday night, December 13, at the Strand Hotel, Chillicothe.

More than fifty persons attended the meeting.

Because of bad weather conditions, the featured speaker, Dr. W. S. Sewell, Springfield, President-elect of the Missouri State Medical Association, was unable to be present.

The program for the evening consisted of two parts. Dr. Donald Dowell, Chillicothe, Councilor of the 1st District of the State Medical Association, spoke to the group on a number of important socio-economic problems now facing the medical profession. His talk was most interesting and informative.

Wives and friends were in attendance.

The second part of the program was under the auspices of the Woman's Auxiliary and consisted of musical offerings. Mrs. A. F. Nibbe, Bethany, sang a number of Christmas songs accompanied on the piano by Mrs. Ralph Bohnsack, Brookfield. Following these splendid numbers, the entire group joined in singing Christmas carols.

The Councilor of the District spoke to the group.

In addition to the special program, an enjoyable social hour and turkey dinner added much to the pleasures of the evening.

More than fifty people were in attendance, including doctors, their wives and guests.

E. A. Duffy, M.D., *Secretary*

Clay County Medical Society

The Clay County Medical Society met in regular session at Sandy's Oak Ridge Manor on Tuesday, October 30. About forty people, including members, wives and guests, were present.

The scientific program, "Present Day Treatment of Tuberculosis," was presented by Dr. Paul Bruce, Dr. Francis J. Mantell and Dr. A. A. Sprong of the Veterans Administration Hospital, Excelsior Springs.

During the business meeting, a committee was appointed to formulate some recommendations to the Clay County Court concerning administration of the medical care program for the indigent of the county. Members were urged to support the Annual Clinical Conference, to be held at Excelsior Springs on November 2.

Meeting of November 27

On Tuesday, November 27, the Clay County Medical Society held an unusually significant program at the Chamber of Commerce Hall in North Kansas City. A panel consisting of Honorable R. Jasper Smith, Federal Judge for U. S. District Court of western Missouri; Dr. Walter S. Sewell, Missouri State Medical Association President-elect, and Honorable James T. Blair, Governor-elect of Missouri, discussed medical and health problems in Missouri. Dr. Sewell expressed the State Association's support of a progressive program by Missouri in the field of mental health and psychiatric care. He also stated that the State Association was continuing to press for a new medical licensure law to insure adequate minimum standards of training and competency for practitioners of the healing arts in Missouri. Governor-elect Blair expressed his feelings that our facilities and program for

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everyday practice***

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- no blood dyscrasias, liver toxicity, Parkinson-like syndrome or nasal stuffiness
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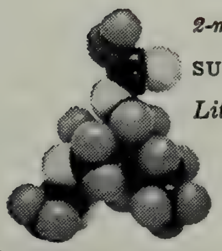

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the care of the mentally ill were grossly inadequate, and that he intended to use his influence to institute a more realistic program in this field. He also stated that our state educational institutions were being inadequately supported at the present time.

More than two hundred people, including members, wives and guests of members, were present at this dinner meeting. Among the guests were: Dr. Victor B. Buhler, Kansas City, immediate Past President of the Missouri State Medical Association; Dr. Donald M. Dowell, 1st District Councilor; William B. Waters, Liberty, State Senator-elect from the 18th District; James Trimble, Kearney, State Representative from Clay County, and William R. Hull, Weston, U. S. Representative from the 6th District of Missouri.

We are indebted to our President, Dr. O. S. Pate, and the program committee of Dr. R. B. Horton, Dr. Robert H. Parker and Dr. Truman B. Schertz for arranging such an exceptional program.

Election of officers for the year of 1957 was held on Tuesday, December 4, at the new County Health Department building in Liberty. Dr. R. H. Dunham, North Kansas City, was elected President; Dr. James E. McCormick, North Kansas City, Vice President, and Dr. S. O. Schroeder, Liberty, succeeds himself as Secretary-Treasurer. Mr. E. W. Holzapfel of Liberty will continue as Executive Secretary.

S. O. SCHROEDER, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

The annual dinner meeting of the Chariton-Macon-Monroe-Randolph County Medical Society for doctors, their wives and guests was held at the Merchants Hotel, Moberly, Thursday night, December 13, with 173 persons present.

Dr. C. C. Cohrs, retiring President, presided at the session and introduced the new officers for 1957 as follows: Dr. Daniel D. Stuart, Brunswick, President; Dr. W. Deward Chute, Moberly, Vice President, and Dr. Robert Young, Moberly, Secretary and Treasurer.

The featured speaker for the evening was Dr. Don Carlos Peete, Associate Professor of Clinical Medicine at the University of Kansas Medical School and Chairman of the Cardiovascular Service at Children's Mercy Hospital in Kansas City. The speaker was given an appropriate introduction by Dr. Jacob W. Fleming, Moberly.

In his discussion of heart disease, Dr. Peete placed most of his emphasis upon coronary disease.

The December meeting of the Society has become an outstanding event of the Society's activities. To this meeting, each year, members of the Society invite lay or other professional friends to a specially planned program. It is felt that good public relation values are being realized from these special meetings.

ROBERT YOUNG, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Lincoln-St. Charles County Medical Society

Mr. Paul Niedner, lawyer of St. Charles, spoke at the December meeting of the Lincoln-St. Charles County Medical Society and its Woman's Auxiliary.

He discussed a pertinent subject, namely, "Saving on Income Tax Through Trusts."

The meeting was held on Thursday night, December 13, in the main dining room of the Southern Air, Wentzville.

Evening festivities began with a social hour, dinner and then Mr. Neidner's interesting and informative presentation.

W. H. POGGEMEIER, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held a joint dinner meeting with the Audrain Hospital Medical Staff, Thursday night, December 13, in the cafeteria of the Audrain County Hospital.

The meeting was called to order by the President, Dr. Glen P. Kallenbach. The minutes and treasurer's report of the previous meeting were read and approved. It was moved by Dr. Ben Jolly that a new alphabetical list of doctors available for bloodmobile service be made. If substitutes become necessary, each doctor is to be responsible for his own. The motion was seconded by Dr. Harold Lankford and carried.

New officers elected for 1957 were: President, Dr. Harry F. O'Brien; Vice President, Dr. David M. Rouse; Secretary-Treasurer, Dr. Lawrence K. Epple, and Delegate to Missouri State Medical Association, Dr. Glen P. Kallenbach and Alternate, Dr. Benjamin N. Jolly.

The following doctors were present: Leonard L. Davis, M.D., Thomas L. Dwyer, M.D., Kathryn C. Epple, M.D., Lawrence K. Epple, M.D., Ernest S. Gantt, M.D., Charles L. Garcia, M.D., Benjamin N. Jolly, M.D., William H. Jolly, M.D., Glen P. Kallenbach, M.D., Harold K. Lankford, M.D., Harry F. O'Brien, M.D., David M. Rouse, M.D., Ed S. Wallace, M.D., William R. Platt, M.D., William J. Stewart, M.D., and Charles M. Waggoner, M.D.

As there was no further business, the meeting adjourned at 10:00 p.m.

ED S. WALLACE, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

The West Central Missouri Medical Society and its ladies held a dinner meeting at Judy's Cafe in Nevada, Thursday night, December 13.

The scientific program for the evening was presented by Dr. Revis C. Lewis, neurosurgeon of Kansas City, who spoke on "Intervertebral Disks."

Following the scientific program, the annual election of officers was held. The 1957 officers are Dr. Rolla B. Wray, Nevada, President; Dr. Jackson Moody, Harrisonville, Vice President, and Dr. Robert L. Magee, Eldorado Springs, Secretary-Treasurer.

L. P. MCCANN, M.D., *Secretary*

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EIGHTH COUNCILOR DISTRICT

B. E. DETAR, JOPLIN, COUNCILOR

Ozarks Medical Society

The December meeting of the Ozarks Medical Society and its Woman's Auxiliary was held at the State Tuberculosis Sanatorium in Mt. Vernon on Tuesday night, December 11.

The scientific program for the evening, sponsored by the Missouri Academy of General Practice, was presented by Dr. Ned Rodes, chief surgeon, Ellis Fischel State Cancer Hospital, Columbia, and Dr. Richard Johnson, chief pathologist at the State Cancer Hospital.

Dr. Rodes spoke on "The Management of Gastrointestinal Tract Hemorrhage From the Surgical Viewpoint." Dr. Johnson discussed "Operability of Breast Cancer." This was an outstanding program and unusually well received.

A good attendance was present at this last society meeting in the year 1956.

L. T. Taylor, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

The December Christmas meeting of the Mid-Missouri Medical Society and its ladies was held in the Pine Room of the Greyhound Bus Station in Rolla, Thursday night, December 13.

Following a bountiful dinner, the scientific program of the evening was presented by Dr. John Byrne, associate urologist, St. Louis University, presently Chief of Urological Services, Fort Leonard Wood, who discussed "Ureteral Injury—Recognition and Treatment."

Following this interesting discussion, the annual election of officers was held.

Dr. J. H. Summers, Lebanon, Councilor of the 9th District of the State Medical Association, spoke to the group on "Medicare" and Public Law 880. The information was greatly appreciated by all.

A good attendance was on hand for this occasion.

M. K. Underwood, M.D., *Secretary*

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner Friday night, November 30, at the Piney Inn, Houston.

Those present were: Dr. and Mrs. T. J. Burns, Houston, host and hostess; Dr. Richard Johnson, Columbia; Dr. and Mrs. John Tarr, Houston; Dr. J. L. Spears, Cabool; Dr. and Mrs. M. L. Fowler, West Plains; Dr. D. E. Tiffany, Mountain View; Dr. H. W. Miller, Willow Springs; Dr. and Mrs. M. B. Perkins, Willow Springs; Dr. and Mrs. R. W. Denney, Mountain Grove, and Dr. Jack Wiles, West Plains.

Following an excellent dinner, the ladies went to the home of Mrs. Burns for the evening, and the doctors remained for the meeting.

Dr. Burns introduced Dr. Johnson, pathologist of the Ellis Fischel State Cancer Hospital of Columbia, who expressed regrets that Dr. Rodes was unable to be present due to illness in his family. Dr. Johnson gave an interesting and informative talk on the "Operability of Breast Cancer." His talk was followed by a vigorous question session by those present. The President expressed the sincere thanks of the Society for Dr. Johnson's attendance at the meeting.

A brief business meeting was held with the following transactions: Dr. John Tarr, Houston, presented evidence of good standing in the Carroll County Medical Society of Ohio and was unanimously elected to transfer membership here.

It was voted that no meeting be held in December, and that the January meeting be on the fourth Wednesday at Mountain Grove with a scientific session and the annual election of officers.

Dr. Burns moved, second by Dr. Perkins, that responsibility for providing meeting places and programs be assigned and rotated to the various doctors by roster instead of by towns as heretofore. Motion was unanimously carried.

Jack N. Wiles, M.D., *Secretary Pro Tem.*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Dunklin, Pemiscot, Butler-Ripley-Wayne and Semo County Medical Societies

A joint dinner meeting of the Dunklin, Pemiscot, Butler-Ripley-Wayne and Semo County Medical Societies was held Wednesday night, November 28, at the Cotton Boll Hotel, Kennett.

The evening festivities began with a social hour, compliments of the Dunklin County Medical Society, followed by a fine smorgasbord dinner and then the scientific program.

The speaker of the evening was Dr. A. W. Neilson, dermatologist, St. Louis, who spoke on "Common Skin Diseases and What to Put on 'Em." This discussion was supplemented by a splendid collection of colored slides illustrating various skin conditions.

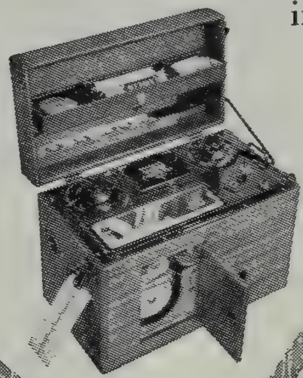
The speaker was thanked for his presentation.

A question and answer period followed Dr. Neilson's formal presentation.

Some twenty-five physicians were in attendance to participate in this excellent program, which was furnished by the Missouri Academy of General Practice.

E. L. Spence, M.D., *Secretary*

There are many short periods of time which, if measured correctly, are considered valuable diagnostic durations — such as the P-R interval in ECG interpretation, and the minutes during which a patient consumes oxygen in a BMR test. If the readings related to these measurements are to be used with complete confidence, it is wise to consider another important measure of time — and that is the *background* of the instruments which produced them.



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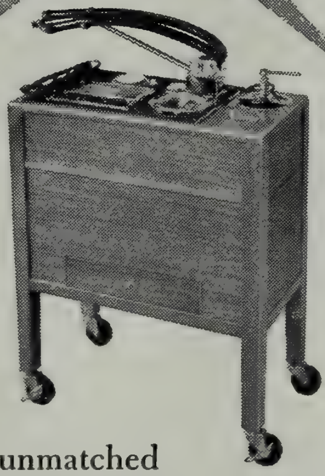

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The Council

The Council met at the Coronado Hotel, St. Louis, Nov. 17, 18, 1956, with W. F. Francka, M.D., Hannibal, Chairman, presiding. Those present were Drs. Francka, Donald M. Dowell, Chillicothe; R. O. Muether, St. Louis; Joseph C. Creech, Troy; Byron M. Stuart, Boonville; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; B. E. DeTar, Joplin; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Carl F. Vohs, St. Louis; W. S. Sewell, Springfield; E. Royse Bohrer, Jefferson City; Jerome I. Simon, St. Louis; Messrs. John W. Noble, Kennett; John Buckner, Springfield; W. H. Bartleson, Kansas City; Hollister Smith, St. Louis; Lemoine Skinner, Ed Schneider, Jordan Singleton, Ray McIntyre, Tom R. O'Brien, St. Louis. Present for a part of the meeting were Drs. O. B. Crawford and W. W. Tillman, Springfield; Henry Allen and Dean Sauer, St. Louis; Richard H. Kiene, Kansas City.

Midwest Conference

A letter from the Arkansas Medical Society suggesting that a Midwest Conference of Medical Associations be established was read. After discussion, on motion of Dr. Sewell, it was voted to obtain more information.

Field Secretary's Report

Mr. McIntyre called attention to the decreasing attendance at several of the larger meetings, the Mississippi Valley Medical Society, the Southwest Clinical Society, the Clay County Conference and the Cape Girardeau Cancer Conference, while attendance at many county medical societies is increasing. In discussion it was brought out that refresher courses and the meetings accredited by the MAGP made a great difference along with increasing meetings of specialty groups. He called attention to the relationship of physicians and druggists and gave objections made on both sides as: dispensing by physicians and substitution and high cost of drugs pertaining to druggists. It was brought out that local circumstances usually influence dispensing by physicians. The Code of Medical Ethics which is under advisement by the A.M.A. in the "income from practice only" was discussed briefly. Mr. McIntyre referred to and read portions of an article in *Collier's,* November 23, "How Does Your Income Compare With Others?" The article showed that doctors had the highest income of any professional group at the present time. Objection was made that the article referred only incidentally to the years of training, the late age at which doctors began to earn and the long number of hours doctors work.

Public Law 569

It was reported that since the original request that 200 items in the schedule of allowances to be presented to the Department of Defense, it was now requested that all items, or 1400 additional ones, be filled in. It was suggested that this be done on a unit basis following the California relative value plan. It was reported that other states which have completed negotiations had done this with the unit being between $4 and $5. It was pointed out that the 200 items would cover 95 per cent of procedures in practice.

Dr. Crawford, who had been in Washington recently, told of his findings in connection with the negotiating with the Department.

The following results of a poll of the membership asking approval or disapproval of the Council's action in going ahead with the negotiation was presented.

Public Law 569
Poll of MSMA Membership

Councilor District	*In Favor*	*Opposed*
First	100	6
Second	39	3
Third	350	97
Fourth	141	27
Fifth	71	14
Sixth	69	7
Seventh	271	21
Eighth	132	9
Ninth	30	2
Tenth	85	4
	1,288	190

One thousand four hundred and seventy-eight doctors participated, and the result shows 87 per cent in favor.

Cards returned improperly marked, unsigned or illegible—34.

Action was delayed until further presentation would be made.

Treasurer's Report

Dr. Simon gave the report of the Treasurer as to balances on hand, showing the Association in good financial condition.

Budget

Dr. Simon presented the following budget, which on his motion, was adopted:

	Proposed Budget for 1957
Salaries	$ 52,460.00
Journal Expense	33,500.00
Postage, Printing and Stationery	5,000.00
Travel: Exec. Secretary	1,500.00
Travel: Field Secretary	3,300.00
Telephone & Telegraph	1,500.00
Office Rent and Light	4,700.00
Meetings and Committee Expense	25,400.00
Defense	500.00
Scientific and Pg. Work	500.00
Woman's Auxiliary	1,200.00
Public Relations	7,500.00
Insurance Annuity	2,700.00
Miscl. Gen. Expense	3,325.00
Furniture and Fixtures	500.00
Social Security Tax	650.00
Unemployment Tax	650.00
Legal Expense	3,200.00
Total	$148,085.00

Dr. Simon explained in presenting the budget that additional personnel was needed and provided for in the budget; that additional space for the office, together with remodeling, was included.

Assessment

Dr. Dowell moved that an amendment to the by-laws be presented to the House of Delegates making

new

a new measure in therapy of overweight

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(brand of phenmetrazine hydrochloride)

...reduces risk in reducing

A totally new development in anorexigenic therapy, PRELUDIN substantially reduces the risks and discomfort in reducing.

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Distinctive in Effectiveness: In three years of clinical trials PRELUDIN has consistently demonstrated outstanding ability to produce significant and progressive weight loss through voluntary effortless restriction of caloric intake.

Distinctive in Tolerance: With PRELUDIN there is a notable absence of palpitations or nervous excitement. It may generally be administered with safety to patients with diabetes or moderate hypertension.

For your patient's greater comfort: PRELUDIN curtails appetite without destroying enjoyment of meals...causes a mild evenly sustained elevation of mood that keeps the patient in an optimistic and cooperative frame of mind.

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the dues include the present assessment and the motion was passed.

Public Law 880

The portion of the law in which the government will match state funds up to $3 per month, per person on a vendor plan payment for medical care of Public Assistance Recipients was reviewed. This would require state legislation to set up a vendor system, and also to make appropriation for matching fund. It was pointed out that the Committee on Medical Economics had requested that delegates to the A.M.A. and Mr. O'Brien contact persons from other states during the A.M.A. session, especially those that at present have such legislation including the State of Washington, and that the Committee then will study this information and make recommendation to the Council.

The portion of Public Law 880 dealing with disability payments under Social Security at age 50 was discussed, it being stressed that the original examining physician made no recommendations. Portions of the law apply to children who, along with older persons, will be referred to a rehabilitation agency, which at present is under the State Department of Education. The Medical Advisory Committee on Rehabilitation was discussed and it was reported that the Committee on Physical Medicine and Rehabilitation was contacting members of that body and then might recommend that the Advisory Committee have legal status. It was pointed out that the whole law needed great consideration and explanation to the membership.

Doctor Draft

Dr. Allen reported that there would be a conference soon on the Doctor Draft but that the feeling was it would go out of existence on July 1. He said some residents were being called and deferment was being asked until July. He said there was a 22.7 per cent increase from 1950 in interns and 40 per cent increase in house staffs, with a 15.8 per cent decrease in citizen house staff and 280 per cent increase of aliens on house staffs.

Dr. Sauer

Dr. Sauer addressed the Council on Blue Shield and Public Law 569. He reviewed that in April 1956 the Council and House of Delegates of the M.S.M.A. approved in principle a service plan and recommended that Blue Shield present the plan to county societies when developed; that in January 1956 Blue Shield had a meeting at which physicians were told that times were changing, that management and labor wanted fixed fees and that medicine was not giving them what they wanted. He said the St. Louis Medical Society tried to acquaint its members with what a service plan is and at a special meeting the Society voted overwhelmingly to oppose the principle of a fixed fee plan. He said he felt that if patients and management understood that it meant a socialized plan, they would oppose. He said the medical service rendered by a physician is his private property and establishing a fixed fee principle is socialized medicine.

On Public Law 569, he said that if membership understood just what it was voting for, the poll which was taken would have been different. That the law delegated rights of the physician to a third party; that the physician could bill the government direct. He said that it should be accepted under protest, if at all; recommended waiting six months before negotiating with the Defense Department and find out at that time how physicians felt. He said it not only influenced the physician but took the right of the individual away, implying that if the uniformed person were paid a high enough stipend, he would then use it for medical payment. He said that each physician could negotiate direct as he did each day with patients; that physicians are underwriting their own doom and therefore the doom of the patient.

He recommended that the Council not act as negotiating agent and that the matter go back to the House of Delegates for rescinding of its action at the 1956 session.

Each of the Councilors and officers present were given opportunity to speak and several discussed the law briefly.

Unit Value

Minutes from the last meeting of the Council were asked for in regard to instructions to the negotiating committee which restricted them in making any change in any fee. It was pointed out that the filling in of the additional 1400 items made it incompatible to have the committee so limited and on motion of Dr. Dowell, this action of the Council was rescinded.

Drug Law

It was reported that the Missouri Pharmaceutical Association is working on a proposed act so that state laws will conform with national laws and they will discuss the act with the Council when it is prepared.

Collection of Dues

A letter from the St. Louis Medical Society was presented setting out two resolutions stating that the Society did not wish to collect A.M.A. dues nor M.S.M.A. dues. After discussion from Dr. Muether and Mr. Smith, on motion of Dr. Sewell, it was voted to decline the request from the St. Louis Medical Society.

Physical Therapist Licensure

The report of the Committee on Physical Medicine recommending approval in principle of a bill which had been presented to them for study dealing with the licensure of physical therapists was presented. Dr. Muether felt that with the introduction of the single licensure bill it was inappropriate to approve a bill setting up an additional examining board; also that other allied fields would probably then wish to be licensed, such as medical technologists. On motion of Dr. Perry, it was voted to table the recommendation until the Chairman of the Committee could be present to give more information.

Ophthalmic Dispensing Bill

A bill directed toward the establishment of an Ophthalmic Dispensing Board to license dispensers was presented with the information that it had been approved by the Kansas City and St. Louis Ophthalmic societies. On motion of Dr. Sewell, seconded by Dr. Bohrer, the bill was approved in principle.

Cerebral Palsy, Inc.

Dr. Vohs reported a letter from the United Cerebral Palsy of Missouri, Inc., which explained the setting up of a medical-professional advisory board and inviting Dr. Vohs to be present at an organizational meeting in Columbia on December 9. Approval was expressed and Dr. Vohs asked Dr. Bohrer to represent him as Dr. Vohs will be out of the state at that time.

Outpatient Care

A letter and questionnaire addressed to hospital administrators from the Health Insurance Council of Yew York was presented. It dealt to some extent with insurance coverage of the outpatient and this was discussed from the standpoint of showing a trend of more and more hospital outpatient department care and its influence on private practice. It was asked that results of the questionnaire be obtained.

Blue Shield

A resolution passed by the St. Louis County Medical Society opposing a service plan by Blue Shield was read. Also excerpts from the minutes of the St. Louis Medical Society meeting of October 16 were read as follow:

NEW BUSINESS
GENERAL SOCIETY MEETING
October 16, 1956

Walter T. Gunn.

From all that has gone on, it is evident that both the doctors and the patients of eastern Missouri are not entirely satisfied with the present functioning of our Blue Shield Plan. If we are to continue to sponsor Blue Shield, it should be revised into the best conceivable health insurance plan which would, on its own merits, attract the widest possible acceptance.

Inasmuch as the Council of the St. Louis Medical Society is, at present, empowered to act as a liaison committee with the Blue Shield of St. Louis, we, therefore, move that:

2. The Council be advised that it is the will of the Society that they investigate the present functioning of the Blue Shield organization and its health insurance coverage.

3. We further move that they obtain the services of a professional insurance counsellor and give special emphasis to the investigation of deductible type plans.

4. We further move that the Council report to the Society on the progress of this study and submit their recommendations for possible improvements within six months of this date.

Dean Sauer.

5. Since the St. Louis Blue Shield Medical and Surgical Plans are represented to the public as the doctors' own plans, I move that the Missouri Medical Service, Inc., be informed through our council that it is the desire of the St. Louis Medical Society that all physician members of the voting and corporate boards of the Missouri Medical Service be elected proportionately by the local medical societies of the geographical area covered by this corporation.

6. It is the further wish of this Society that the Missouri Medical Service take immediate action to amend its bylaws as necessary in order to implement this desired plan for elective representation of the physicians it serves.

R. Bruce McCloskey.

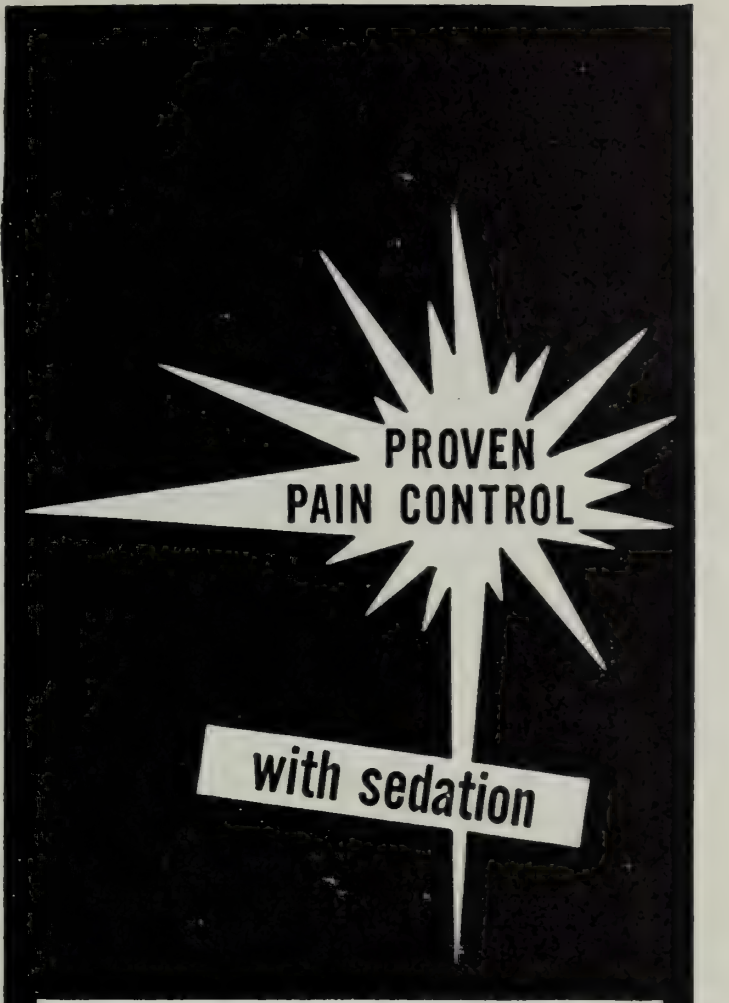
7. Since it has been overwhelmingly demonstrated that the St. Louis Medical Society is vigorously opposed to the service or fixed fee type of insurance plan and since the advocates of the service type plan draw upon the vote of the state delegates to the last meeting of the state medical society as their authority to develop such a plan, we, therefore, move that the delegates of the St. Louis Medical Society who will attend the next state medical convention be instructed that it is the will of the Society that they take the necessary action to withdraw our support of the principle and go on record as opposing the principle of a service or fixed fee insurance plan.

This was discussed by several Councilors but the feeling was that more information was necessary and Dr. Muether suggested that Blue Shield be asked to give a break-down of the voting membership and the board "geographically and proportionately" to be studied at the next Council meeting.

Annual Session Program

Dr. Kiene presented the scientific program for the 1957 Annual Session to the Council, calling special attention to the instruction courses that will be given on Tuesday morning of the session. The program as presented was approved.

W. F. FRANCKA, M.D., *Chairman*.



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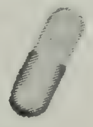

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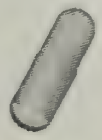

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Doctors in National Politics

Six physicians are members of the 85th Congress which convened in January. In a special report from the Washington Office of the American Medical Association information is given on each of these doctors.

Walter H. Judd of Minnesota has been a member of the House since 1942; served in the field artillery in World War I, was a medical missionary in China from 1925 to 1931 and 1934 to 1938; just prior to World War II staged virtually a one man campaign to arouse people of the United States against Japanese military expansion.

Arthur L. Miller of Nebraska has been a member of the House since 1942. He was an Army reserve surgeon in World War I, served as mayor of Kimball, Neb., was a member of the Nebraska legislature and was state health director.

Ivor D. Fenton of Pennsylvania has been a member of the House since 1939. He was an Army surgeon for twenty months in World War I, spending eleven months overseas.

Thomas F. Morgan of Pennsylvania has been a member of the House since 1944. He maintains practice at Fredericktown, Pa.

Will E. Neal of West Virginia was a member of the House in 1952-1954 and was elected again for 1957-1958. He has been in general practice at Huntington, West Virginia, since 1906 with the exception of time spent as mayor, in the state legislature and in various health posts.

Antonio Fernos-Isern, has been Puerto Rico's Resident Commissioner in Washington since 1946. He is a cardiologist, has been a professor of public health in the School of Tropical Medicine of Puerto Rico, commissioner of health and acting governor of the island several times prior to election to the House.

DOCTORS WERE IN ON THE GROUND FLOOR

The same report from the Washington Office gives a history of the physicians in public life, beginning with the signing of the Declaration of Independence. The report, in part, follows:

"In 1776 Josiah Bartlett was 47 years of age, described by his biographer as 'a tall man with a fine figure . . . who . . . wore his auburn hair in a queue.' He was considerably more than that. He was a distinguished Massachusetts physician and an able and ardent patriot. He already had suffered for his interest politics; he had been ousted from his post as justice of the peace by the Royal Governor of Massachusetts, and has seen his home burned to the ground.

"By 1776 Dr. Bartlett clearly had made his choice. So it was natural that as a Massachusetts delegate to the Continental Congress he signed the Declaration of Independence. Perhaps it was only an accident, but he was the second person to sign the engrossed document at the formal ceremony on August 2 of that year.

"Dr. Bartlett was not the only physician to sign the Declaration. There were four others: Drs. Lyman Hall, Benjamin Rush, Matthew Thornton and Oliver Wolcott. All except Dr. Wolcott were in active practice at the time; while trained in medicine, he had given it up for law.

"With all the others who signed the document—the lawyers, the statesmen, the soldiers, the businessmen—these five doctors were to achieve a degree of immortality. They are also symbolic of the strong interest the medical profession has taken in national legislation over the years.

DOCTORS IN CONGRESS THROUGH THE YEARS: BY STATES, BY PARTIES

"Dr. Bartlett had been one of four physician members of the Second Continental Congress in 1775. The next year the Colonies sent eight doctors to the deliberations. In the critical years of 1783-84, eleven doctors were in the young Congresses that struggled to keep the states united. It is a tribute to the versatility of the profession that in the 181 years since 1775 doctors have sat in every Congress.

"Research by this office carries down through nearly two centuries, Congress by Congress, the story of the medical profession's contribution to the development of the American legislature. Here are some statistics on the doctors' participation:

"Total Representation. Six physicians now are members of the House of Representatives of the 85th Congress that convenes in January. Counting them, a total of 359 physicians have served in American Congresses since 1775, including 35 Senators. Of the 359, eleven practiced another profession—generally law—as well as medicine, 33 were not active in practice when elected, and 18 had graduated in medicine but never practiced.

"By Parties. A total of 165 physicians were Democrats. Other party representation: Republicans 67, Whigs 30, Federalists 17, Jacksonian Democrats 6, American party 5, National Republicans 2, Independents 2, and one each from six other minor parties. There is no record of party affiliation for 32 doctors in Congress, and party labels were not attached to the 27 who sat in the Continental Congress between 1775 and 1788.

"By States: The large states that were members of the original 13 Colonies naturally have supplied the most doctors to Congress. Leading the list is Pennsylvania with 52. Next are New York with 48 and New Jersey, 30. Ohio, although coming into the Union later, has sent 26 doctors to Congress. Other totals: Georgia 17, Kentucky 12, Maryland 16, Massachusetts 13, Missouri 10, New Hampshire 14, Virginia 18, North Carolina 11. Connecticut has elected six to Congress, Delaware seven, Illinois five, Indiana seven, Louisiana five, Michigan five, South Carolina five, Tennessee eight. The following have elected from one to four physicians as Representatives or Senators: Alabama, Arkansas, California, North Dakota, Florida, Idaho, Iowa, Maine, Minnesota, Montana, Nebraska, New Mexico, Oregon, Rhode Island, Texas, Utah, Vermont, Washington, West Virginia, Wisconsin and Wyoming. Puerto Rico's present Resident Commissioner also is a physician, Dr. A. Fernos-Isern. He is a non-voting member of the House.

13 PHYSICIAN-CONGRESSMEN ALSO WERE GOVERNORS

"Among the 359 doctors who have reached Congress, there are scores who, the records show, thrived on

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political combat. All their lives they were active in state and local politics and government, as well as national. They were sheriffs, judges, state legislators, state and national committeemen. Records we have studied are evidence that at least 13 of these men—doctors elected to Washington—also became state or territorial governors at one time or another.

"One of the most colorful must have been Dr. James W. Throckmorton of Texas, who served in the House of Representatives after the Civil War. He was elected governor of Texas without much trouble, but was thrown out of office on orders of General Sheridan.

"Three states—Alabama, Delaware and Ohio—had doctors as their first governors. William W. Bidd was Alabama's first governor, before coming to Congress, where he served both in Senate and House. Likewise, Edward Tiffin was elected first governor of Ohio in 1803, following which he came to Washington as a U. S. Senator. Joshua Clayton, who had one term in the U. S. Senate at the end of the eighteenth century, was Delaware's first governor.

"At least two physicians who served in Congress also have been territorial governors. Late in his career, William A. Newell was territorial governor of Washington, a job that could not have been a novelty to him as he had served as New Jersey's chief executive between two terms in the U. S. Senate in the mid-nineteenth century. Dr. Newell rounded off his career with an appointment as U. S. Indian Inspector, starting in 1884. During the Civil War William Jayne was Dakota Territory governor after sitting two years in the U. S. House as a non-voting delegate.

"Other physician-governors who spent some time in the U. S. House or Senate: John Osborne, Wyoming governor 1893-95; William Harrison Bissel, Illinois, mid-nineteenth century; Alexander M. Dockery, Missouri's governor at end of nineteenth century; William Eustis, who served as U. S. Minister to the Netherlands and Governor of Massachusetts after two terms in the House of Representatives; Joseph Kent, Maryland's governor between terms in U. S. House and Senate; and Drs. Hall of Georgia and Wolcott of Connecticut, mentioned earlier as signers of the Declaration of Independence.

SCORES OF PHYSICIAN-CONGRESSMEN ALSO LED TROOPS IN BATTLE

"When the country was young and bursting at its seams, doctors like others moved from one profession or business to another rather freely—medicine to law to agriculture then perhaps back to medicine. But among doctors in national politics, the most popular transition was from medicine to military duty as line officers, then back again to medicine. This tendency was pronounced during the Revolutionary War, continued through the War of 1812, and was not unusual in the Civil War, even though by that time there was a national awareness of the great value of military surgeons.

"Henry M. Shaw of North Carolina, served two terms in the U. S. House of Representatives before the Civil War. But when the fighting started he showed up as a line colonel in the Confederate Army and was killed in action near New Bern, N. C.

"Similar to his career was that of a contemporary, Graham Fitch of Indiana, who raised a regiment of volunteers for the North and led the men as colonel until wounds forced his retirement. A younger doctor in Virginia, Robert E. Withers, followed the same course; a major of infantry, then colonel, finally discharged "in consequence of numerous disabling wounds." After the war he served in the Senate, founded the Lynchburg, Va., *News,* was named consul at Hong Kong.

"A generation earlier Solon Borland of Arkansas had done the same thing—practiced medicine until the fighting started in Mexican and Civil Wars, then led troops in battle. His Senate service came between the wars. Similarly John Bratton of South Carolina preferred fighting to doctoring; like Dr. Borland he had the rank of line brigadier general in the Confederate Army. He was a U. S. Senator after the reconstruction period.

"In view of these cases, it is not unusual that two physicians who served in Congress also were selected as Secretary of War. One was Henry Dearborn of Massachusetts, line officer in the Revolutionary War, secretary of war for eight years under Washington, member of Congress, then senior major general in command of troops in the War of 1812. An earlier Secretary of War for Washington was James McHenry of Maryland, whose Revolutionary War record shows him as surgeon, secretary to Washington, member of Lafayette's staff. He had sat in the Continental Congress."

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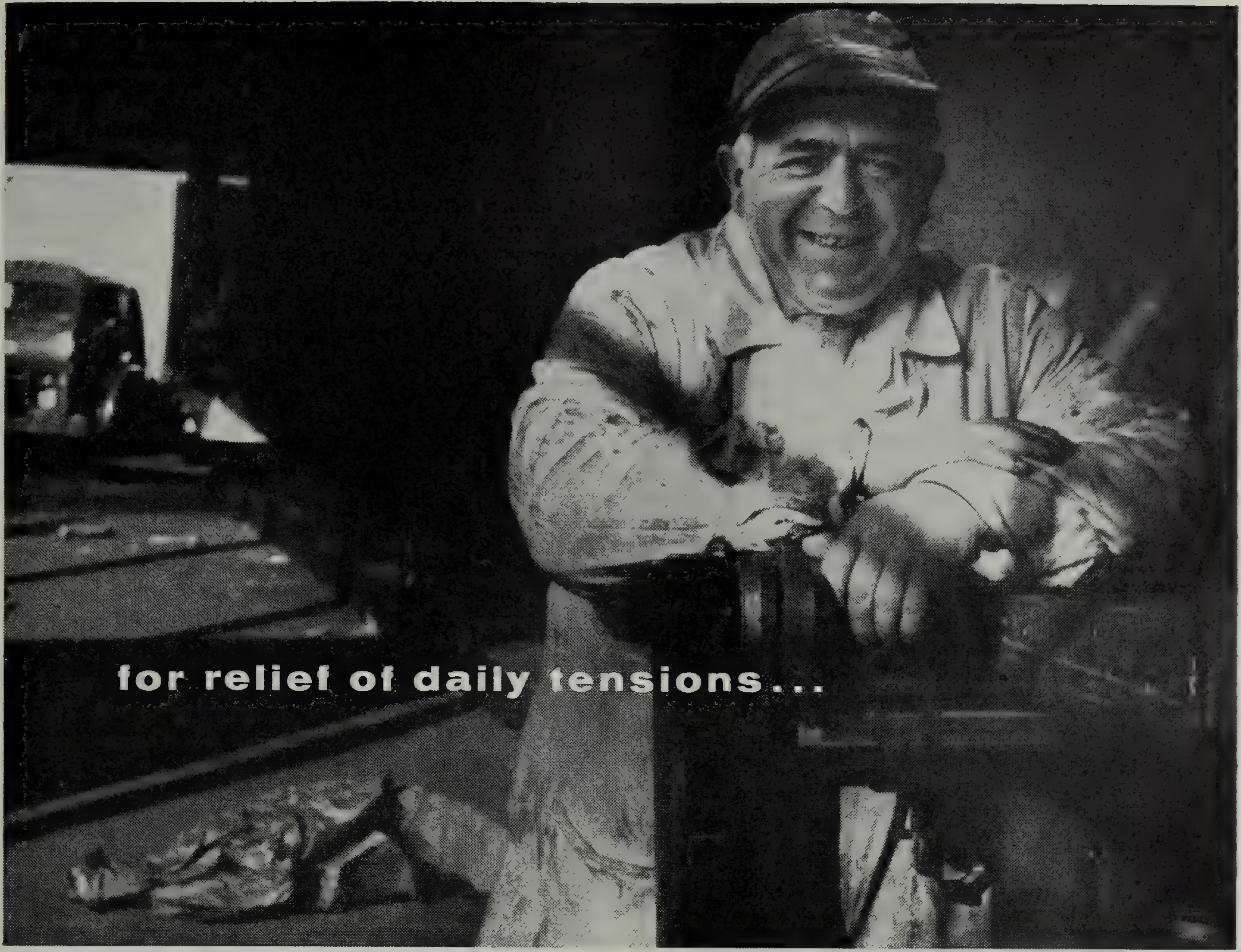
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*Ferguson, J. T.: J. Am. Geriatrics Soc. *4*:1080, 1956.

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From the Medical Schools

SAINT LOUIS UNIVERSITY

Alumni Reunion

The Class of 1947 will celebrate its tenth reunion in St. Louis, Monday, March 25, and Tuesday, March 26, during the American Academy of General Practice Convention meeting in St. Louis.

Two days of varied activity have been planned by a local committee of nineteen graduates. A special program has been arranged for alumni wives. Classmates and their wives will register at the Park Plaza Hotel, March 25 at 5:30 p.m. The first social activity will be a stag dinner at Hotel Kingsway at 7:00 p.m. Medical Alumni wives will dine at Hotel Chase at 7:00 p.m., and attend a play at the American Theatre later in the evening.

A tour of the Saint Louis University Medical School, Cardinal Glennon Memorial Hospital and Firmin Desloge Hospital has been scheduled for Tuesday, March 26, at 1:30 p.m. Dr. James W. Colbert, Jr., Dean, will escort the group on the tour. A dinner dance in the Crystal Room of the Coronado Hotel at 8:00 p.m. that night will climax the two day celebration. Dr. Clement B. Grebel, Medical Alumni Secretary, is in charge of the local arrangement committee.

Appointments

Six new faculty members have been appointed at the School of Medicine. Dr. William T. Fitzgerald has been appointed instructor in internal medicine. He was awarded his M.D. Degree from the School of Medicine in 1950, and interned at St. Vincent's Hospital in Portland, Oregon. He completed his residency training at the St. Mary's Group of Hospitals in 1956.

Dr. Edward P. Flynn has been appointed instructor in internal medicine. He was awarded his M.D. Degree from the School of Medicine in 1950. Dr. Flynn interned and completed his residency training at the St. Louis University Medical Service at St. Louis City Hospital.

Dr. Fred P. Handler has been appointed instructor in pathology. He was awarded his M.D. Degree from Washington University School of Medicine in 1947, and interned at Jewish Hospital. He was a resident in pathology at Jewish Hospital and City Hospital, and is a former instructor in pathology at Washington University.

Dr. Robert C. Hoppe has been appointed instructor in internal medicine. He was awarded his M.D. Degree from St. Louis University in 1951. He interned at St. Mary's Hospital in Minneapolis, Minn., and completed his residency training in internal medicine at Jefferson Barracks and Cochran Veterans Administration Hospitals.

Dr. John G. Leahy has been appointed an assistant in surgery. He was awarded his M.D. from St. Louis University in 1950 and completed his residency in surgery at City Hospital.

Dr. Joseph C. Rush has been appointed assistant in radiology. He was awarded his M.D. Degree at Creighton University, interned at Mercy Hospital in Des Moines, Iowa, and completed his residency at City Hospital.

Grants and Fellowships

A grant of $9,800 has been awarded to Dr. R. Walter Schlesinger, director of the Department of Microbiology, by the Children's Research Foundation of St. Louis. The purpose of the grant is the establishment of a virus research laboratory at the Cardinal Glennon Memorial Hospital for Children. The award was made by the Foundation in keeping with its aim to support research for the purpose of preserving, protecting and improving the mental and physical well-being of infants and children. The new laboratory will be set up for the investigation of certain children's diseases whose cause has so far remained obscure. Special attention will be paid to selected respiratory infections and diseases of the intestinal tract and glandular tissues which are believed to be caused by viruses.

Dr. Maurice Green, recently appointed assistant professor of microbiology, has been awarded a U. S. Public Health Service fellowship, under which he will study tissue culture technics in the virus laboratory of The Children's Hospital in Philadelphia. Dr. Green will assume his duties in the department of microbiology in the spring, and will then carry out fundamental investigations on the biochemistry of virus infected human cells.

Honors

Four medical students and two nursing students have been selected to appear in the 1956-1957 edition of *Who's Who Among Students in American Universities and Colleges*. From Medical School: John J. Collins, Thomasville, Ga.; Raymond V. Jungwirth, St. Louis; John W. McMahon, Butte, Montana, and William S. Sly, East St. Louis, Ill. From Nursing School: Miss Martha Calverly, Princeton, Indiana, and Donald Vasterling, St. Louis.

WASHINGTON UNIVERSITY

Meetings

Dr. Robert E. Shank, Danforth professor of preventive medicine and head of the department and professor of preventive medicine in the department of medicine, was elected president of the Washington University Medical Society at a meeting held Dec. 12 at the Medical Center. Others elected were: Vice president, Dr. Bernard Becker, professor of ophthalmology and head of the department; and secretary, Dr. Jack Davies, associate professor of anatomy and Markle scholar in anatomy. New council members are: Dr. Richard J. Bing, professor of medicine and chief of the Washington University Medical Service at Veterans Hospital; Dr. William Sleator, Jr., associate professor of biophysics in physiology; and Dr. Harvey R. Butcher, Jr., assistant professor of surgery and Markle fellow in surgery. At the meeting four research papers were presented by faculty members. These included: "Studies on the Demonstration of Insulin in the Islets of Langerhans by the Fluorescent Antibody Technic," by Dr. Paul E. Lacy, instructor in pathology, and Dr. Jack Davies; "Enzymatic Synthesis of Deoxyribonucleic Acid," by Dr. Arthur Kornberg, professor of microbiology and head of the department; Dr. I. R. Lehman, American Cancer Society research fellow in microbiology; Dr. M. J. Bessman, U. S. Public Health Service postdoctoral fellow in microbiology, and E. S. Simms, research assistant in microbiology; "Hypnotic Investigation of the Specific Relation Between Attitudes and Physiological Changes," by Dr. David T. Graham, assistant professor of medicine and psychiatry; Dr. John A. Stern, research associate in medical psychology, and Dr. George Winokur, assistant professor of psychiatry; and "Analysis of Single Nerve Cells," by Dr. Oliver H. Lowry, professor of pharmacology and head of the department and dean of the school of medicine; and Nira R. Roberts, research assistant in pharmacology. Each paper was presented by the senior author.

Dr. Seymour M. Monat, assistant professor of clinical obstetrics and gynecology, recently gave a speech at a meeting of the Marion County Medical Society. His subject was "Recent Progress in Gynecology."

Grants

Dr. Arthur Kornberg, professor of microbiology and head of the department, recently received a grant of $87,000 from the National Science Foundation. The grant will aid a five year study concerned with acid synthesis and studies of virus formation.

Another grant from the Foundation was awarded to Mildred Cohn, research associate in biological chemistry, for a three year investigation on phosphate reactions. This grant was for $30,000.

Election, Appointments

Dr. Robert W. Bartlett, associate professor of clinical surgery, has been elected chairman of the Section of Surgery of the Southern Medical Association. The election took place at the recent fiftieth annual meeting of the Association in Washington, D. C.

Dr. Robert W. Ogilvie, instructor in surgical pathology, has been appointed to the staff of St. Luke's Hospital as chief pathologist and director of laboratories. He will begin his service on August 1.

Dr. Robert D. Brookes, instructor in clinical neurology, was chosen president of the medical staff of St. Vincent's Hospital at the recent annual election of officers.

Honored

Three faculty members of Washington University School of Medicine were among the sixteen physicians honored as Jubilarians by the St. Louis Medical Society at recent special services. They are: Dr. Adolph H. Conrad, associate professor emeritus of clinical dermatology; Dr. Jerome E. Cook, assistant professor emeritus of clinical medicine, and Dr. Sherwood Moore, professor emeritus and lecturer in radiology and consultant in radiology to the division of tumor services.

Resignation

Dr. Amoz I. Chernoff, former assistant professor of medicine, has been appointed associate professor of medicine at Duke Medical School. His appointment was announced recently in Durham. Dr. Chernoff, who resigned his position here in November, joined the staff at Washington University School of Medicine in 1951 as an American College of Physicians fellow in internal medicine. He was appointed an assistant professor in 1954.

UNIVERSITY OF MISSOURI

Trips and Talks

Dr. Roscoe L. Pullen, Dean, University of Missouri School of Medicine, and Mr. Ray McIntyre, Field Secretary of the Missouri State Medical Association, were guest speakers over television station KTVI, St. Louis, on November 23, 1956, under the sponsorship of the St. Louis Medical Society. The program was conceived by Dr. A. W. Neilson of the St. Louis Medical Society. The program was given during Farm-City Week in St. Louis and Dr. Pullen and Mr. McIntyre discussed "How the Medical Profession Is Attempting to Provide Better Medical Care for Rural Missouri."

Dr. Pullen was guest speaker to the Rotary Club in Moberly, Missouri, on December 13, 1956, where he spoke on "Developments at the University of Missouri Medical Center." The meeting was attended by approximately fifty lay and professional members of the organization.

On December 5 and 6, Dr. Joseph E. Flynn, professor and chairman, Department of Pathology, attended a Clinical Pathological Conference at Hartford, Connecticut, which was attended by approximately 400 physicians and surgeons. The conference was sponsored by the Clinical Congress of Yale University School of Medicine and the Connecticut State Medical Society Congress.

Dr. Theodore E. Keats, associate professor, Department of Radiology, attended the meeting of the Radiological Society of North America on December 8, 1956, in Chicago, Illinois. The meeting, attended by some 1,000 members of the organization made the participant aware of a number of new technics which indicate the need for modification of present methods in the field of radiology.

Dr. Jerry Wm. Brown, assistant professor, Department of Anatomy, attended the Association for Research in Nervous and Mental Disease meeting in New York, N. Y. on December 7 and 8, 1956. Dr. Samuel P. W. Black, associate professor in the Department of Surgery also attended the meeting. The topic for discussion was "The Brain and Human Behavior" and was discussed by a group of selected speakers from America and Europe who are eminent in their field.

Dr. Hugh E. Stephenson, Jr., associate professor and chairman, Department of Surgery, spoke to the Jasper County Medical Association meeting in Joplin, Missouri, on December 11, 1956, where he discussed "The Current Status of Cardiac Arrest and Resuscitation."

Dr. George Mixter and Dr. Robert Pfeffer, assistant professor of surgery at the N. Y. U., Bellevue Medical Center, New York City, were guests of the Department of Surgery on November 26, 27, and 28, 1956. They spoke on "Acute Hemorrhagic Pancreatitis" and their experimental approach to the problem.

On December 1, 1956, Dr. Thomas W. Burns, assistant professor, Department of Medicine, attended a meeting of the National Foundation for Rheumatic Disease at Bethesda, Maryland.

Dr. John H. Killough, associate professor, Department of Medicine, spoke on "Hypertension" to members of the Cooper County Heart Association at Boonville, Missouri, on November 26, 1956. The meeting was attended by thirty-five lay and three professional members of the association.

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Postgraduate Medical Education

The second in a series of Postgraduate Medical Education Sessions was held on November 29, 1956, in the University of Missouri Medical Center. Dr. Jacob S. Roden, assistant professor and acting chairman of the Department of Obstetrics and Gynecology, and Dr. George J. Fuchs, assistant professor of obstetrics and gynecology, spoke on "Complications of Labor and Delivery Due to Fetal Abnormalities." A Clinical Pathological Conference was presented by the Department of Pediatrics following the talks.

The third Postgraduate Medical Education Session was held December 6, 1956, at the University of Missouri Medical Center. The speakers for this conference were Dr. W. A. Sodeman, professor and chairman, Department of Medicine, and Dr. Clement E. Brooke, assistant professor, Department of Pediatrics, who used as their subject: "Fever of Undetermined Origin." Following this session, a Correlative Clinic was held by the Department of Psychiatry and Medicine on "Peptic Ulcers."

The fourth in the series of Postgraduate Medical Education Sessions was held December 13, 1956, at the University of Missouri Medical Center with Dr. Walter R. Hepner, Jr., associate professor of pediatrics, and Dr. Jacob S. Roden, assistant professor and acting chairman, Department of Obstetrics and Gynecology, as speakers. They chose as their subject: "Bleeding in the Third Trimester—Maternal and Fetal Management." A Clinical Pathological Conference followed, presented by the Department of Medicine and Pathology.

Gifts and Grants

The School of Medicine has been awarded a grant in the amount of $25,000 from the Department of Health, Education and Welfare, U. S. Public Health Service, for the period January 1, 1957 to December 31, 1957. The grant will be used for undergraduate cancer teaching at the University of Missouri School of Medicine under the direction of Dr. Joseph E. Flynn, professor of pathology and cancer coordinator for the School of Medicine.

A grant of $500 has been awarded to the School of Medicine by the Torsion Balance Company, New York, N. Y., to be used for the study of the use of the analytical balance. The period covered by this grant is November 30, 1956 to January 1, 1958 and will be administered by Dr. T. D. Lucky, professor and chairman of the Department of Biochemistry.

A gift of $2,000 was given by Mr. and Mrs. Carlisle Turner of Columbia, Missouri, on November 9, 1956, to be used to purchase dental equipment and appliances for crippled children and other children in the University of Missouri Medical Center.

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TUBERCULOSIS ABSTRACT

CHRONIC PROGRESSIVE (CAVITARY) HISTOPLASMOSIS AS A PROBLEM IN TUBERCULOSIS SANATORIUMS

Chronic progressive histoplasmosis, in contrast to acute progressive or disseminated form, occurs primarily among older persons and is localized to the lungs except in the terminal stages. Both forms of the disease, however, are eventually fatal. The early stage of the chronic form is characterized by apical or subapical pneumonic infiltrations which progress to multiple thick-walled, usually bilateral cavities.

In order to avoid further confusion in terminology the descriptive term, chronic progressive (cavitary) histoplasmosis, is proposed to designate this type of disease.

The symptoms of this form of histoplasmosis are cough, moderate weight loss, usually a slight elevation of the erythrocyte sedimentation rate, occasional fever, profuse sputum, sometimes hemoptysis. The disease is characterized by exacerbations; the patient usually seeks medical help after an acute bout of what is called "influenza," at which time pneumonic or cavitary disease is found. This bout may subside and the patient not be seen again until several years later, at which time he has a similar episode and further extension is discovered. Quite often the cavitation is only in one lung at the start and, later on, following another bout of so-called "influenza," the disease spreads to the other lung. In the early stages large cystlike cavities may be seen, followed later by spread of the process.

The disease usually progresses to fatal termination and just before this occurs there is dissemination of the fungus throughout the body with enlargement of the liver and spleen. Frequently at postmortem examination Histoplasma may be cultured from all organs of the body.

In this type of disease the sputum usually is loaded with Histoplasma capsulatum and positive cultures are readily obtained. Serologic tests are usually positive and serve as a good screening tool. Tubercle bacilli are occasionally found, but most of the cases are not complicated by tuberculosis.

Chronic progressive histoplasmosis closely resembles reinfection type of tuberculosis, and could be considered to be reinfection histoplasmosis. This classfication is based on the finding in some cases of negative tuberculin tests, positive histoplasmin skin tests, positive serologic tests, positive cultures for the fungus, and the presence of chronic cavitary disease of the apices in association with calcified lesions in the hilar area. Autopsy on such patients fails to reveal evidence of tuberculosis and the criteria of "chronic reinfection histoplasmosis" appear to be fulfilled.

A total of only sixteen cases of chronic progressive cavitary histoplasmosis has been previously reported. It is the purpose of the present paper to show that this type of disease occurs frequently among patients in a tuberculosis sanatorium.

The studies to be reported have been conducted at the Missouri State Sanatorium at Mount Vernon, Missouri. This sanatorium has an average daily census of 550 patients, 85 per cent of whom are white and 15 per cent are Negro. Casual studies begun in 1952 revealed an occasional case of histoplasmosis. Between March and August, 1954, a systematic survey of the patients at the sanatorium was undertaken. During the survey, skin tests were made. The mycologic laboratory services were augmented and careful attempts were made to establish the diagnosis in all patients whose serologic tests were positive or whose diagnosis was in doubt in any way.

A case was termed "mycologically proved" if organisms typical of H. capsulatum were isolated by culture from the patient or were seen in tissues removed surgically or at autopsy. A "serologically proved" case was one in which the serologic tests for histoplasmosis were positive (1:8 or higher) on either of the complement-fixation tests or the precipitin test. Adequate cultural studies on the "serologically proved" cases usually revealed the presence of the organism. However, in many of these cases the patient had left the hospital before mycologic studies could be completed, or the disease was of the milder type from which positive cultures could not be obtained because of passage of time since infection.

These essentially casual studies for the presence of histoplasmosis in a tuberculosis hospital have now yielded a total of nineteen "mycologically proved" cases and ninety-five "serologically proved" cases. These cases have been observed for a three year period. During the three months survey, fourteen "mycologically proved" cases and twenty-nine "serologically proved" cases were found. Of the 600 patients in the survey, fourteen (2.4 per cent) were proved to have histoplasmosis by actual demonstration of the organism. In an additional twenty-nine (4.8 per cent), the diagnosis of histoplasmosis was established by serologic tests.

In most cases the patients were more than 50 years of age, the males outnumbered the females, and all but one of the patients were white. In a number of cases, the onset of illness had occurred a number of years prior to determination of the etiology. The chest roentgenographic findings in almost all cases showed bilateral cavitation. Skin tests were positive to tuberculin in nine cases and to histoplasmin in fourteen of the eighteen cases tested. The serologic tests of histoplasmosis were positive in every patient. The organism was identified from every patient in most cases by culture from the sputum; occasionally, from cultures from the lung at operation or autopsy. The presence of the organism was demonstrated in tissue obtained at postmortem examination in two cases in which fungal cultures were not done. The patients have been observed from a minimum of several months to a maximum of seventy-six months. Three patients have died. Progression of the disease occurred in nine of the nineteen cases.

The finding that 7.2 per cent of the patients in a tuberculosis sanatorium have "serologically proved" histoplasmosis and that the actual presence of the microorganism was demonstrated in 33 per cent of the cases is indeed remarkable. It certainly calls for serious consideration of the importance of histoplasmosis in tuberculosis sanatoriums. If it be assumed that a similar prevalence obtained throughout the general area of high histoplasmin sensitivity, quite startling figures would be obtained.

Calculations have been made of the number of tuberculosis sanatorium beds in the areas where his-

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Issued by the National Tuberculosis Association.
By Michael L. Furcolow and Charles A. Brasher, *The American Review of Tuberculosis and Pulmonary Diseases,* May, 1956.

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Missouri Medical Meetings

Missouri State Medical Association Annual Session, Kansas City, March 31, April 1, 2, 3, 1957.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Society—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—third Tuesday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—fourth Tuesday of each month except June, July and August, at auditorium of General Hospital No. 1.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets only on call.

Johnson County Medical Society—meets only on call.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark-Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Webster County Medical Society—meets only on call.

West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

Tuberculosis Abstract

(Continued from page 172)

toplasmin sensitivity among adults exceeds 50 per cent. This area extends roughly from southern Ohio in a sweeping circle through central Indiana and Illinois, eastern Kansas and Oklahoma, northeast Texas, northern Louisiana, Mississippi and Alabama, and includes all of Tennessee, Arkansas, Missouri and Kentucky.

If the findings of the present study prove to be generally applicable to the histoplasmosis area, some 1,200 patients in tuberculosis hospitals would be found to have histoplasmosis. These 1,200 cases would obviously furnish an important reservoir for differential diagnosis as well as a complicating factor in any therapeutic trial of tuberculosis.

The accurate estimation of this problem is obviously of fundamental importance to all persons concerned with the care of the tuberculous. These patients not only occupy tuberculosis beds, but they derive no benefit from antituberculosis therapy and may contract the disease. Furthermore, the demonstration of more cases of histoplasmosis should furnish an adequate pool of cases for trials of therapeutic agents so urgently needed in this fungal infection. Moreover, the finding of histoplasmosis in the degree which might be encountered in this area might permit further usage to be found for beds in these sanatoriums. At present the general treatment of histoplasmosis is similar to that of tuberculosis before specific therapy was found.

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Arena, Municipal Auditorium

Zimmer Manufacturing Company, Warsaw, Indiana. Booth 1.

H. G. Fischer & Co., Franklin Park, Ill. Booth 3.

H. G. Fischer & Company invites you to personally examine the latest models of Modern X-Ray apparatus, F.C.C. type approved Ultrasonic Generators, Short Wave Diathermy Units and Low Voltage Generators at its booth. Attendants will welcome the opportunity to discuss the apparatus with you. Ask for copies of the Simplified X-Ray Manual and the Ultrasonic Manual. They are free and without obligation.

Pet Milk Company, St. Louis. Booth 4.

The Pet Milk Company invites you to stop and discuss the variety of time-saving material available to busy physicians. Their representatives are on hand to discuss the merits of "Pet" Evaporated Milk for infant feeding and Instant "Pet" Nonfat Dry Milk for special diets. A miniature "Pet" Evaporated Milk can will be given to all visitors.

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Baxter Laboratories, Inc., Morton Grove, Ill. Booth 6.

Baxter Laboratories, Inc. presents the Travert-Electrolyte solutions along with the blood transfusion equipment. Look for the new Incert for the addition of succinylcholine chloride, vitamins B and C. Be sure to see this new method for safe, simple supplementing of parenteral solutions. The new pediatric scalp vein set is also shown.

Storck Pharmaceuticals, St. Louis. Booth 7.

Storck Pharmaceuticals is exhibiting: Metalex—to increase cerebral function in geriatric patients and thereby alter symptoms associated with the aging process; Jurasule—the first delayed action capsule for 10 to 12 hour duration of protracted sedation using butabarbital sodium—in ¾ gr. and 1¼ grs. dosages; Evax Inserts—an entirely new approach to enemas, using a suppository with effervescent action.

W. B. Saunders Company, Philadelphia. Booth 8.

A. H. Robins Company, Inc., Richmond, Va. Booth 9.

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Merck Sharp & Dohme, Philadelphia. Booth 10.

The Merck Sharp & Dohme exhibit presents "Co-Deltra" and "Co-Hydeltra," specifically designed to provide all the benefits of prednisone and prednisolone plus positive antacid action to minimize gastric distress. Related adrenal cortical steroid preparations in endocrine disorders, collagen diseases, respiratory allergies, eye diseases and skin conditions are also highlighted. "Cathomycin," a new and potent antibacterial agent of great clinical significance, will be of interest. "Cathomycin" has been highly efficient in its action against staphylococci and some strains of proteus vulgaris resistant to all other known antibiotics. Expertly trained personnel will be pleased to discuss new dosage forms, new indications, and the latest summaries of advanced clinical reports in these fields.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. Booth 11.

Welcome to the R. J. Reynolds Tobacco Company Exhibit! You are cordially invited to receive a cigarette case (monogrammed with your initials) containing your choice of Camel, Winston Filter, Menthol Fresh Salem, or Cavalier King Size Cigarettes.

Swift & Company, Chicago. Booth 12.

Strained Ham, a unique flavor addition to the varieties of Meats for Babies, is announced by Swift & Company. The sweet flavor goodness of Swift's Premium Ham, ground to a smooth creamy texture, is the newest variety of Strained Meats for infants. See and taste it at the Swift exhibit. You are cordially invited to examine the complete line of these 100 per cent meat products, as well as Swift's Strained Egg Yolks and Swift's Strained Egg Yolks and Bacon for Babies; to discuss with the representatives, Swift's clinical research program in connection with meat in the infant diet.

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Milex Products is displaying a full line of Gynesic specialties, including their manually shapeable plastic folding pessaries, examining and post partum specula, special instruments for uterine cancer detection and cytological study. They will also feature products for both fertility and sterility problems and Lestens for pre-menstrual tension.

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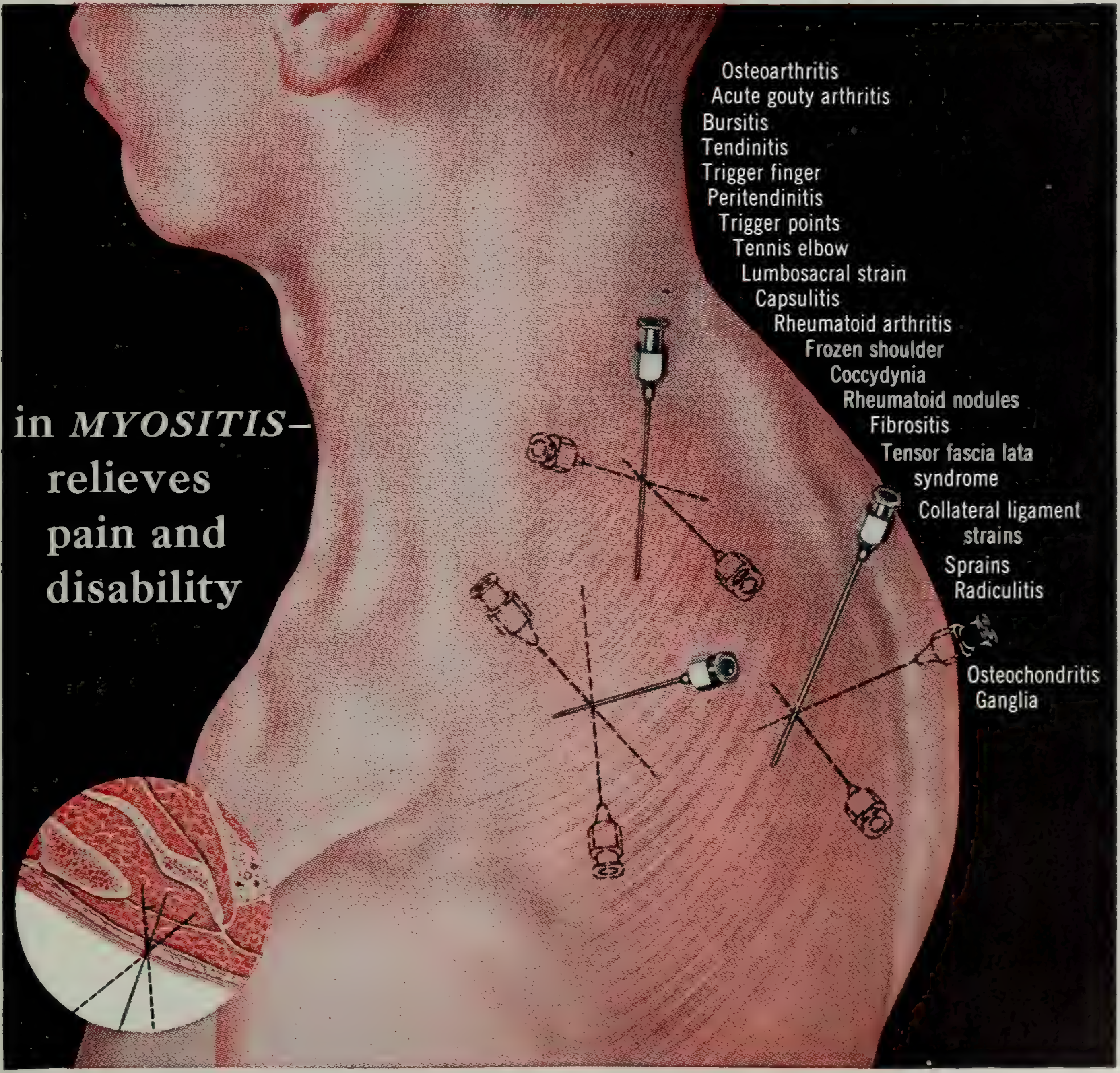
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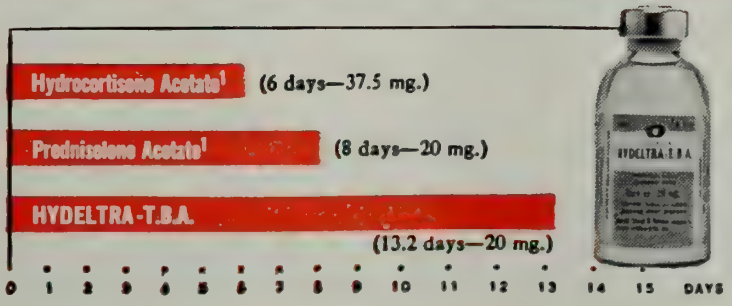

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1. Hollander, J. L., *Paper read at conference in New York City, May 31 and June 1, 1955*

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Sanborn Company, Cambridge, Mass. Booth 17.

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Dumas-Wilson & Company, St. Louis. Booth 26.

Dumas-Wilson & Company extends a cordial invitation to the physicians attending this annual session to visit their booth featuring several new specialty items of interest to the specialist as well as the general practitioner.

G. D. Searle & Company, Chicago. Booth 27.

You are cordially invited to visit the Searle booth where their representatives will be happy to answer any questions regarding Searle Products of Research. Featured are Nilevar, the new anabolic agent; Rolicton, the new safe, non-mercurial oral diuretic; Vallestril, the new synthetic estrogen with extremely low incidence of side reactions; Banthine and Pro-Banthine, the standards in anticholinergic therapy; and Dramamine, for the prevention and treatment of motion sickness and other nauseas.

J. B. ROERIG & COMPANY, CHICAGO. BOOTH 28.

J. B. Roerig and Company, Booth 28, features Atarax, the new "Peace of Mind" drug. It's an all new chemical and is specially indicated for the "more normal" person, to bring relief from the common everyday anxieties and annoyances. Co-featured with Atarax is Bonadoxin, the anti-emetic for relief of the nausea and vomiting of pregnancy; also effective in postanesthetic nausea, Meniere's Syndrome and postradiation sickness. Literature and samples are available at the booth, which you and your friends are cordially invited to visit.

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THE WARREN-TEED PRODUCTS COMPANY, COLUMBUS, OHIO. BOOTH 32.

The Warren-Teed Products Company is featuring Modane tablets and liquid at Booth 32. Modane is a new, nutritional, deconstipant which not only relieves but also rehabilitates the impoverished atonic bowel. Modane (tablets and liquid) provides non-irritating, overnight relief plus nutritive restoration of the bowel motility. All convention registrants are cordially invited to visit the display and learn about the "Modane Family."

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E. R. Squibb & Sons has long been a leader in development of new therapeutic agents for prevention and treatment of disease. The results of their diligent research are available to the Medical Profession in new products or improvements in products already marketed. At Booth 34 E. R. Squibb & Sons representatives are pleased to present up-to-date information on these advances for your consideration.

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J. B. Lippincott Company presents, for your approval, a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching, are a continuation of more than 100 years of traditionally significant publishing.

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ELI LILLY & COMPANY, INDIANAPOLIS, IND. BOOTH 38.

You are cordially invited to visit the Lilly exhibit located in space 38. The display contains information on recent therapeutic developments. Lilly sales people are in attendance. They welcome your questions about Lilly products.

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Visitors to the convention are invited to inspect the new Mosby titles in Booth 39. Included will be the following: Sutton "Diseases of the Skin," Cordonnier "Clinical Urology for General Practice," Key-Conwell "Management of Fractures, Dislocations and Sprains," Meakins "Practice of Medicine," Forster "Modern Therapy in Neurology," Sodi-Pallares "New Bases of Electrocardiography," Leider "Practical Pediatric Dermatology," DeSanctis-Varga "Handbook of Pediatric Medical Emergencies," Ball "Regional Gynecologic Surgery and Urology," Dodson "Urological Surgery," Ulett-Goodrich "A Synopsis of Contemporary Psychiatry," Dodson-Hill "Synopsis of Genitourinary Diseases," Bray "Clinical Laboratory Methods," Gradwohl "Clinical Laboratory Methods and Diagnosis," Anderson "Synopsis of Pathology" and Richards "Surgery for General Practice."

U. S. VITAMIN CORPORATION, NEW YORK. BOOTH 40.

The U. S. Vitamin Corporation exhibit features Arlidin, an entirely new, relatively safe and effective vasodilator drug with three unique pharmacologic actions: (1) dilates predominantly small blood vessels of skeletal muscle, (2) increases circulating blood volume, (3) increases cardiac output. Thus, Arlidin (Nylidrin HCl. NNR) is indicated in treating intermittent claudication and a wide range of functional and obliterative disorders of peripheral vascular insufficiency. Professional samples and literature distributed also on their complete line of nutritional and pharmaceutical specialties.

AUDIO-DIGEST FOUNDATION, GLENDALE, CALIF. BOOTH 41.

DOHO CHEMICAL CORPORATION, NEW YORK. BOOTH 42.

Doho Chemical Corporation is pleased to exhibit Auralgan, ear medication in otitis media and removal of cerumen; Otosmosan, the effective nontoxic fungicidal and bactericidal (gram negative-gram positive) in the suppurative and aural dermatomycotic ears; Rhinalgan, the nasal decongestant which is free from systemic or circulatory effect and equally safe to use on infants as well as the aged; and new Larylgan, the soothing throat spray and gargle for infectious and noninfectious sore throat involvements.

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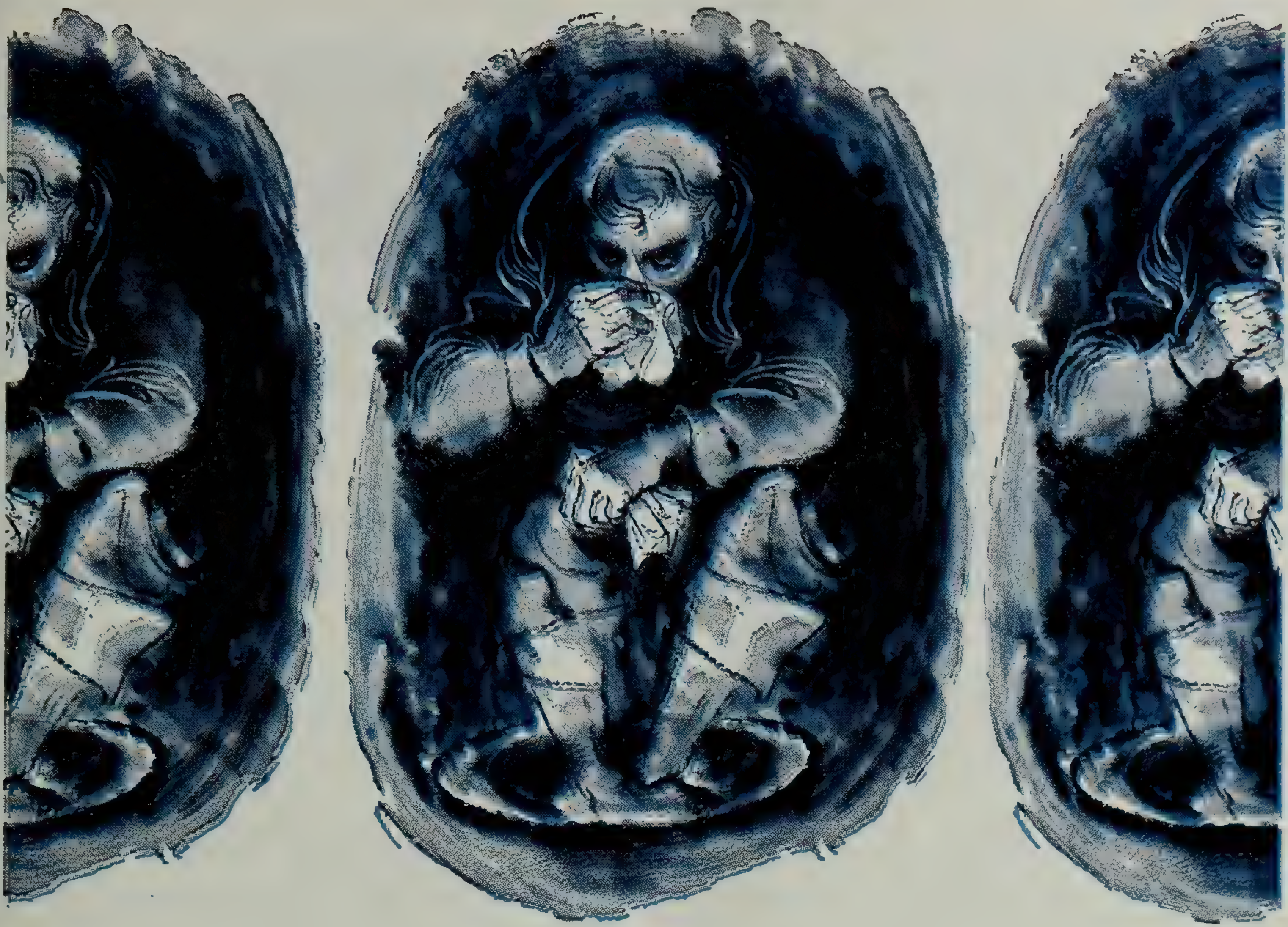

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Book Reviews

INTERPRETATION OF THE UNIPOLAR ELECTROCARDIOGRAM, by Gordon B. Myers, M.D., Professor of Medicine, Wayne University College of Medicine; Head, Department of Medicine, City of Detroit Receiving Hospital. Illustrated. C. V. Mosby Company, St. Louis. 1956. Price $4.75.

This text or manual tends to approach the idea in that it is a book with a definite objective, written by a man extremely competent in his field, who proceeds without superfluous material in a well organized fashion, attractively presented, and reasonably priced.

This book will not please the beginner in electrocardiography because of its seeming complexity, nor will it likely satisfy the erudite professional, but for the average physician with practical everyday knowledge of the subject, this book will serve not only as a review of perhaps forgotten knowledge but also as a stimulus to more careful study of one's day-to-day electrocardiographic practice.

There are five chapters, the first entitled "The Relation of the Electrocardiographic Deflections to Mechanical and Electrical Events in the Cardiac Cycle." Then follows "Procedure for the Interpretation of Multiple Precordial and Unipolar Limb Leads"; "Origin and Form of the Normal and Abnormal Q, R, S, and T Complexes"; "Disorders of Rate and Rhythm," and finally, "A Summary of Q, R, S, and T Patterns in Unipolar Thoracic and Limb Leads."

Academically it is impossible for the novitiate to criticize the master, but this does seem to be a fine manual. The chief criticism is that the excellent script on the arrhythmias is somewhat difficult to follow because of the lack of accompanying diagrams.

Though electrocardiographic interpretation solely is approached in this small text, Dr. Myers, ever the clinician, admonishes the reader that the electrocardiogram should be employed only as an adjunct in the final diagnosis and never as a substitute for clinical findings. Dr. Myers is to be congratulated on his treatise; however, it is hoped that should another edition be published more adequate illustrations be used though it is realized that the inclusion of reproductions of electrocardiograms adds considerably to the cost of such a manual. J. W. C.

PULMONARY DISEASES. Edited by Roscoe L. Pullen, A.B., M.D., F.A.C.P., Professor of Medicine and Dean, University of Missouri School of Medicine, Columbia, Missouri; Consultant to the Surgeon General, Department of the Army, Washington, D. C. 195 Illustrations, 4 plates, 1 in color, Lea & Febiger, Philadelphia. 1955. $15.00.

There are surprisingly few good books written on pulmonary disease, but this volume prepared by Roscoe L. Pullen, the editor, and twenty contributing authors is one of them.

There are excellent introductory chapters on the physiology of respiration. These are followed by chapters on upper respiratory infection, bronchitis, bronchiectasis, bronchial asthma, benign tumors of the lung, bronchogenic carcinoma, the pneumonias, tuberculosis, the mycoses, structural alterations, and chapters on the mediastinum, diaphragm and injuries of the thorax.

The contributors have, in general, been well chosen, each with obvious experience in his field. The chapter on pulmonary mycoses is especially well done.

One might have wished that somewhat more attention had been given the emotional aspects of the development and treatment of such diseases as tuberculosis and asthma. The chapter on tuberculosis is excellent; a few remarks about its prevention and the important role of rehabilitation of the tuberculous patient might well have been included.

This is, however, an excellent book which should prove valuable to all physicians interested in pulmonary disease. B. F.

CIBA FOUNDATION SYMPOSIUM ON HYPERTENSION. HUMORAL AND NEUROGENIC FACTORS. Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Margaret P. Cameron, M.A., A.B.L.S. Assisted by Joan Etherington. With 73 Illustrations. Little, Brown and Company, Boston, 1954. Price $6.75.

This group of papers presented at a symposium held in London in 1954 is a fairly broad survey of work in twelve countries on the fundamental nature of hypertension. Outstanding is the full and sharp discussion following each presentation.

This book brings into clear focus the fact that since 1934 research has failed to capitalize on the great work of Goldblatt in the original experimental production of hypertension. Nothing in the present treatise approaches the stature of Goldblatt.

The symposium is interesting, moderately informative and not extremely practical. M. G. B.

STRABISMUS, DIAGNOSIS, AND TREATMENT, by Beulah Cushman, M.D., Attending Ophthalmologist, Passavant Memorial Hospital; Swedish Covenant Hospital; Women and Children's Hospital, Chicago, Ill.; Associate Professor, Ophthalmology, Northwestern University Medical School, Chicago, Ill. Illustrated. Lea & Febiger, Philadelphia. 1956. Price $6.00.

In writing this book about "Strabismus," the author has described in detail the procedures to follow for its diagnosis and treatment.

The ophthalmologist will find this book easy to read, beautifully outlined, and eminently practical. It combines incisiveness along with remarkable inclusiveness, making it an excellent reference. C. H.

DISEASES OF THE CHEST, by H. Corwin Hinshaw, M.D., Clinical Professor of Medicine, Stanford University School of Medicine; and L. Henry Garland, M.B., B.Ch., Clinical Professor of Radiology, Stanford University School of Medicine. 634 Illustrations on 288 Figures. W. B. Saunders Company, Philadelphia. 1956. Price $15.00.

This volume has been prepared by the close collaboration of an internist and a radiologist in order to

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keep abreast with the striking new developments in many portions of thoracic medicine during the last ten years. It provides an up to date text book for students and practitioners; it is adequately illustrated to encompass most of the thoracic disorders which are encountered in practice. The text is intentionally brief. The diseases of the esophagus have been omitted.

A complete list of references is apparently felt to be unwieldy, but references are cited which the reviewer thought to be adequate.

"Disease of the Chest" is an excellent book, primarily from a medical and radiologic standpoint. J. L. L.

THE RELIEF OF SYMPTOMS. By Walter Modell, M.D., Associate Professor, Clinical Pharmacology, Cornell University Medical College. W. B. Saunders Company, Philadelphia. 1955. Price $8.00.

This book was written to teach the student and to remind the practitioner that relief of a patient's complaints is an important part of medicine and sometimes overlooked in efforts for specific diagnosis and specific therapy. However, it is not a collection of the author's favorite prescriptions to make patients happy, but rather takes the most common symptoms and analyses them on a physiologic basis and discusses the basic pharmacology pertinent to the particular symptom.

The first five chapters deal with theory and include an excellent chapter on the placebo action of drugs. The second part deals with twenty-four specific symptoms most often seen in practice and there is a final chapter on cortisone and the masking of symptoms.

As to providing a simple formula for what medicines to give to assure relief from a particular complaint, the book certainly does not do that. It does stress the importance of methodical approach by using physiologic and pharmacologic principles.

The author is to be commended for attention to this subject and he does not in any way imply the neglect of specific diagnosis and therapy. M. B. B.

HYPNOTIC SUGGESTION. Its Role in Psychoneurotic and Psychosomatic Disorders. A Thesis. By S. J. Van Pelt, M.B., B.S. President of the British Society of Medical Hypnotists; Editor of the British Journal of Medical Hypnotism. Philosophical Library, New York. 1956. $2.75.

This little book is written by one who is designated as the President of the Society of Medical Hypnotists. So in England there is evidentally a specialty not existing in this country—one in which a professional man treats functional nervous cases by hypnosis. The idea is arresting but it must be said the exposition in this book is not altogether reassuring. One is interested in reading that various compulsive states, ordinarily resistent to treatment, are relieved, as for instance, writer's cramp, depressions, alcoholism, asthma, migraine, impotence, frigidity and the like. But the writer's success, as he relates it, passes belief. In six or so mild sessions on the exposing of the supposed unconscious trauma, the conditions were completely and permanently relieved. Now, to one familiar with neurotic states this is magic beyond Houdini. Neurotic conditions are complex and persistent and relief from distressing symptoms is usually only gradual and relative.

This reviewer has long been hopeful of having a competent medical hypnotist to work with and believes that much may be accomplished in this way. But the hypnotist should work with a psychiatrist; and neither should anticipate such remarkable results as those pictured in this book. L. B. A.

THE MANAGEMENT OF OBSTETRIC DIFFICULTIES. By Paul Titus. Revised by J. Robert Willson, M.D., Professor of Obstetrics and Gynecology, Temple University School of Medicine; Head of the Department of Obstetrics and Gynecology, Temple University Hospital; Consultant in Obstetrics and Gynecology and Chief of the First Service, the Philadelphia General Hospital, Northern Division. With 348 Text Illustrations and one Color Plate. Fifth Edition. C. V. Mosby Company, St. Louis. 1955. Price $12.50.

This 1955 edition of a standard "argument-settler" shows extensive and authoritative revision of the 1950 edition by the late Dr. Paul Titus. Dr. Willson has done a monumental job in bringing the original text up to high standards of practicality, in contrast to previous editions which have been more of the "research type."

The current edition displays a completely new format and type-face, both of which contribute to easy readability. The book is smaller by some 300 pages, and adequately illustrated. A large percentage of the illustrations are holdovers from the 1950 edition, but the present volume is enhanced by the addition of several new illustrations and the deletion of many of the older ones. The text is concise, easily readable and interesting throughout.

In contrast to the earlier editions, this volume is brought up to the last minute in many fields: as late as 1950, the former book practically condemned exchange transfusions—the current edition presents an up-to-date discussion of exchange transfusions in erythroblastosis edited by Dr. Victor Vaughn, Associate Professor of Pediatrics at Temple University. Also included in the present edition are adequate discussions of retrolental fibroplasia and prematurity.

Worthy of mention is the fact that while previous editions concerned themselves primarily with abnormal obstetrics, the current edition prefaces much of the abnormal with a short and concise summary of the normal—a fact too soon forgotten in the maze of complications.

Refreshing, indeed, is the admission by the writer which says in essence that ". . . our methods (at Temple) are not necessarily . . . the best . . . but in our hands seem to produce the best results. . . ."

Hearkening back to the first edition of this book, the words of Dr. Titus seem apropos: ". . . to develop a practical aid to physicians who are meeting and contending with obstetric emergencies and difficulties. . . ."

This book is wholeheartedly recommended to the specialist, the general practitioner and to the occasional obstetrician. Its pages contain information which are of inestimable value to any physician delivering babies—whether he be expert, incidental, intern, resident or medical student. W. S. A.

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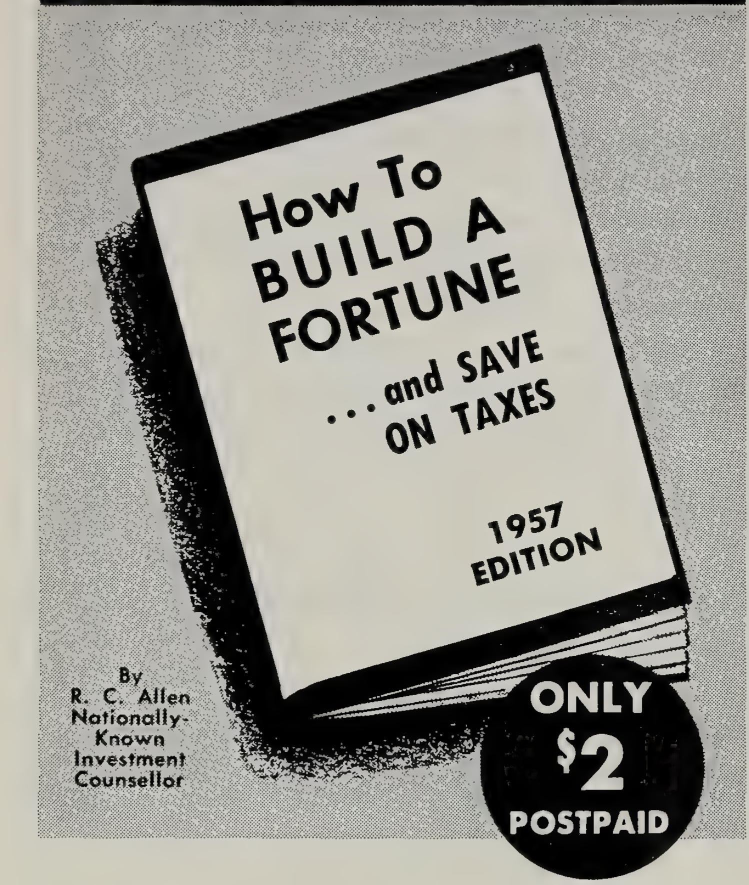
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The Recovery Room. Immediate Postoperative Management, by Max S. Sadove, M.D., Professor of Surgery (Anesth.) and Head, Division of Anesthesiology, University of Illinois College of Medicine and the Research and Educational Hospitals; James H. Cross, M.D., Clinical Assistant Professor in Surgery, University of Illinois College of Medicine. With Contributions by 24 Authorities. Illustrated. W. B. Saunders Company, Philadelphia and London, 1956. Price $12.00.

This is a well written volume concerning the care of patients in the immediate postoperative period, and includes the treatment of certain other acutely ill patients.

After an introduction by Warren H. Cole, M.D., the first two chapters are devoted to the administrative considerations of such a unit, and the basic principles of the management of such a unit.

The third chapter covers management of circulation, shock, respiration and nutrition. The remaining chapters of the book are devoted to the various surgical specialties, and each chapter discusses the postoperative care of patients in a specific specialty.

From the standpoint of hospital administrators this book should prove interesting, particularly in hospitals that do not have a recovery room, and that have a shortage of personnel, particularly personnel qualified in the treatment of the more acutely ill patient.

This book is recommended as an excellent reference book which should be present at the nursing station in all recovery rooms. It is also highly recommended to the interns and residents who may be assigned duties in this particular department of the hospital. Certainly, it will also prove useful and interesting to those physicians engaged in the practice of any of the surgical specialties. It is particularly recommended to the attention of the general practitioner, or internist, who, along with the attending surgeon, may be following the postoperative condition of a surgical patient. P. J. C.

Clinical Recognition and Management of Disturbances of Body Fluids, by John H. Bland, M.D., Associate Professor of Medicine, University of Vermont College of Medicine. Second Edition. W. B. Saunders Company, Philadelphia, 1956. Price $11.50.

Doctors in all branches of medicine are constantly confronted by the many situations of "Disturbances of Body Fluids" in disease states. Equally important to their recognition is the treatment of these clinical problems. The author has integrated the basic physiology of water, electrolyte and hydrogen ion metabolism with bedside observations. The latter observations are constantly stressed throughout the text, recognizing that practicing physicians must meet the call of diagnosis and treatment many times at places far from the convenience of modern laboratory.

The objectives of the author have been accomplished. The entire book in provocative. It is revealing. It is useful for the intern and the seasoned physician alike as it keeps pace with the newest laboratory studies and their implications.

The book contains approximately 500 pages; chapter divisions are sharp, allowing the book to be read at one's leisure as well as for reference.

It is not possible in a review of this type to discuss the many problems covered in a text of this size and scope. An added asset lies in a bibliography of source material at the end of each chapter. Indexing is also adequate. E. P. R.

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J.A.M.A. Queries and Minor Notes. Published for the American Medical Association by The C. V. Mosby Company, St. Louis, 1956. Price $5.50.

This publication is a compilation of inquiries sent to the editors of the *Journal of the American Medical Association,* with the answers handed down by the experts in each respective field.

The subject matter varies, depending on the problems presented. Pinpoint questions are asked which are not covered by textbooks or journals. and the answers represent an opinion based on such facts as are available.

During the past, the American Medical Association has published three compilations of articles selected from the "Queries and Minor Notes," column printed in each weekly issue of the J.A.M.A. Appearing under the former title of "Selected Questions and Answers," the last compilation appeared in 1950 as volume 3, and covered the period from 1943 to 1949. Popular demand exhausted the supply of volume 3, and after numerous requests the material for the present publication was selected from items published prior to July 1955.

The publication consists of 334 pages with twelve chapters and appropriate subdivisions such as: The Body as a Whole; The Skin and Appendages; Musculoskeletal System; Respiratory System; Cardiovascular System; Hemic and Lymphatic Systems; Digestive System; Urogenital System; Endocrine System; Nervous System; Organs of Special Sense, and the final chapter entitled, Miscellaneous.

The reviewer is impressed at the variety of subjects covered, and also the brevity of the answers covering pertinent and essential facts. It is not necessary to read twenty pages of material to find what is known about a given subject. The answers are spelled out in a few paragraphs of well chosen words.

It is impossible to go into detail of the subject matter covered. Needless to say, this is a valuable book for the general practitioner and specialist as a quick and ready reference. It is not written as an exhaustive treatise, but in inquiries and answers, and there is many a nugget of information not found in standard works.

It is highly recommended to hospitals, interns, residents and busy practitioners. M. B. C.

Physical Diagnosis. Fifth Edition. Ralph H. Major, M.D., Professor of Medicine and of the History of Medicine, The University of Kansas; Mahlon H. Delp, M.D., Professor of Medicine, The University of Kansas. Illustrated. W. B. Saunders Company, Philadelphia and London, 1956. Price $7.00.

The rereading of a textbook on physical diagnosis should be of great value to all engaged in the practice of medicine. The busy practitioner is liable to neglect this important phase of the practice of medicine, and recalling the principles to mind will almost certainly be helpful.

There is probably no textbook on this subject that is as easily read as is Major. In fact, Major lends itself admirably to the recall problem outline. It is this purpose which Major serves most admirably. It is probable that for the student a more detailed text would be of more benefit, providing a more detailed text would in fact be studied.

This fifth edition of Major has been changed in some ways, but basically it retains all the sound, excellent qualities that have always made it an excellent textbook. C. S.

Ciba Foundation Colloquia on Endocrinology. Volume 9. Internal Secretions of the Pancreas. Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch. and Cecilia M. O'Connor, B.Sc. With 100 Illustrations. Little, Brown and Company, Boston, 1956. Price $7.00.

This book contains the papers presented at the Ciba Foundation International Conference in June 1955. It deals with recent research on the secretions of the alpha and beta cells of the islets of Langerhans. It is generally accepted that insulin is a product of the beta cells, while glucagon which is a hyperglycaemic-glycogenolytic substance, is now believed to be secreted by the alpha cells. Experimentally, alpha and beta cells must be selectively destroyed in order to study their metabolic activities. Alloxan destroys beta cells while IPTD or synthalin destroys alpha cells.

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Both alpha and beta cells are influenced by nervous, metabolic and hormonal factors. Although the mode of action is not fully understood, evidence is presented which indicates that all these factors may act upon insulin—secreting cells through the production of hyperglycaemia or increased insulin demand. If the demand on the pancreas is not excessive, the beta cells are able to hypertrophy and to produce more insulin; but if the demand is excessive or the pancreatic reserve is low, less insulin is produced and diabetes may result.

The hepatic action of insulin has long been a subject of controversy, probably due to inadequate control of the blood sugar level, and to the presence of glucagon in the insulin used. It has now been shown that in the intact animal insulin increases the glucose uptake of the liver, and that this accounts for a significant part of the total glucose disappearance induced by insulin.

There is probably an inter action of glucagon and insulin, under physiological conditions, accelerating carbohydrate metabolism according to the requirements of the body. There is evidence to suggest a mutual trigger mechanism controlled by the level of blood sugar, glycogen supply of the liver and glucose demand of the muscle cells.

Glucagon research is in the same stage now that insulin was in following the first successful experiments of Banting and Best. It is believed that further study will bring practical results which will aid in the treatment of diabetes, and other disorders of carbohydrate metabolism, especially insuloma and Von Gierke's disease. M. C. C.

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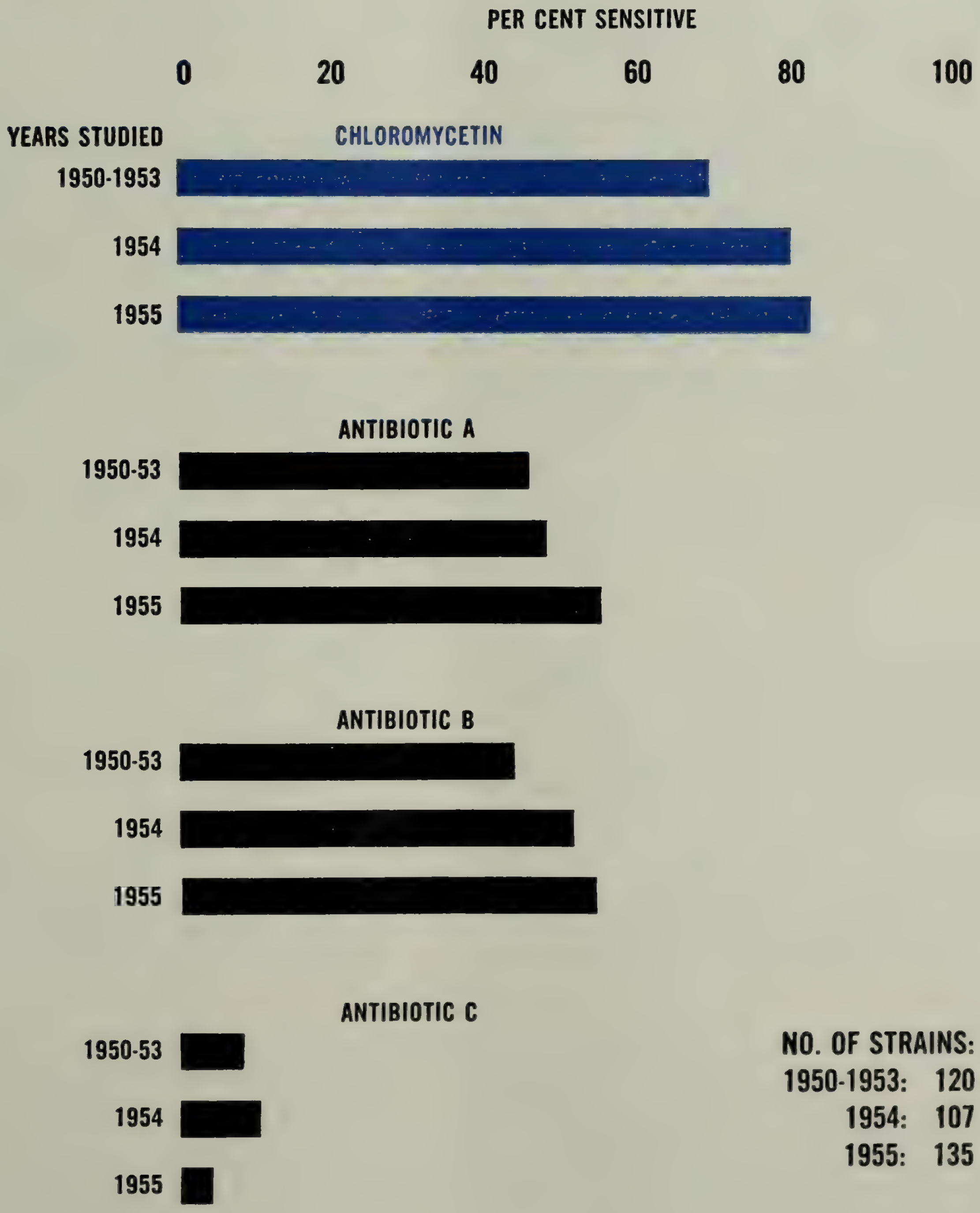

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Curiosa et Trivia

WILLIAM B. MCCUNNIFF, M.D.

Rare? Brucellosis has been known to account for the loss of 87 million dollars per year in livestock in the U. S. It is conservatively estimated that well over ten thousand Americans are suffering from the disease.

Something *is* being done about it! Seton Hall College of Medicine in New Jersey is the fifth new medical school to begin operation since World War II.

Russian laws in 1917 decreed that abortions, for whatever reason, were illegal. By 1920, they were considered legal "under certain conditions." Starting in 1936, abortion was illegal except for "certain medical indications." Since 1955 the state has considered abortion legal with no restrictions.

A study of middle-income American men reveals that about one fourth have proven dietary deficiencies. And even in this age of "enlightenment" less than 10 per cent of them used any vitamin or mineral supplement.

The average radioisotope worker receives less radiation than x-ray department personnel. In a recent survey it was found that dentists, dermatologists, and urologists all received larger doses of radiation than the isotope workers.

Salk vaccine was not the first to have control difficulty. In 1901, two physicians in Munich isolated a potent antibiotic which they named pyocyanase. Several hundred patients were treated successfully with the new drug, but since quality controls and standardization were nonexistent, the drug was abandoned.

The *United States Pharmacopeia* has added about six hundred new drugs within the last decade. Reflecting this, it is estimated that about 90 per cent of the drugs in the average prescription department were unknown ten years ago.

Patients afflicted with Asiatic cholera have been known to die within sixty minutes of the onset of symptoms.

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Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

The Committee on Scientific Work is preparing the program for the next annual session which will convene at Springfield, May 14 to 16. The members of the committee are Dr. J. P. Henderson, Argyle Building, Kansas City; Dr. W. C. Gayler, Wall Building, St. Louis, and Dr. E. J. Goodwin, 3517 Pine Street, St. Louis, Chairman.

On Feb. 17, 1917, Wylie B. Jones and Herbert E. Woodward, the two men convicted of fraud in the exploitation of Sargol, were fined $30,000, Jones having to pay $20,000 and Woodward the balance. Both fines were paid and the defendants waived their right to appeal and agreed to have the Sargol Company go out of business.

Dr. J. L. Eaton of Bismarck has been seriously ill with pneumonia for several weeks. He is reported to be improving. Dr. Selig Simon of St. Louis has been appointed Medical Director of the Jewish Home for chronic invalids and tuberculosis patients situated on the Fee Road, St. Louis County. Dr. F. H. Matthews has been reelected president of the State Board of Health. The board will hold its next meeting in St. Louis March 26, 27 and 28 to examine applicants for license to practice medicine. The Medical Society of the Missouri Valley will hold its next meeting at Keokuk, Iowa, March 22 and 23. Hotel Iowa will be headquarters, and the sessions will be held in the Masonic Temple. Dr. S. B. Scholz of St. Louis has resigned as medical referee for the Equitable Life Assurance Society at St. Louis and accepted the position of chief medical director of the Missouri State Life Insurance Company. Dr. C. M. Nicholson, because of a functional eye trouble, is taking an enforced rest at his country place in Virginia. He has obtained a leave of absence from the St. Louis University and immediately following his complete recovery, expects to visit South America and Japan. Dr. Clarence Loeb, formerly of St. Louis, has moved to Chicago, where he will reside permanently. He will be associated with Drs. Joseph C. Beck, Harry L. Pollock and Otto M. Rott. Dr. Loeb will limit his practice to diseases of the eye. Dr. I. N. Stebbins of Clinton has purchased the Vernon Sanitarium located at Nevada. The Vernon Sanitarium was established by Drs. J. M. Yates and V. O. Williams, the latter being the chief surgeon of the Missouri National Guard, who died suddenly just before the guard went to the Mexican border.

The regular meeting of the Buchanan County Medical Society was held at their rooms Wednesday evening, Feb. 7, 1917, with twenty-three members present, the president, Dr. Floyd Spencer, in the chair. A motion was made and carried that the regular business meeting of March 7, 1917, consist of a "wet smoker" to be held at Hotel Robidoux, plates $1 each. The Cape Girardeau County Medical Society held its regular monthly meeting February 12, in the office of Dr. Yount, Cape Girardeau, Dr. Hope, the newly elected president, in the chair. Those present were: Drs. R. D. Blaylock, D. H. Hope, W. N. Howard, Arthur Poe, R. F. Wichterich, E. H. G. Wilson and W. E. Yount. A report of work for 1916 shows thirty-eight members; number of meetings held, nine; average attendance, nine, and a little surplus in the treasury.

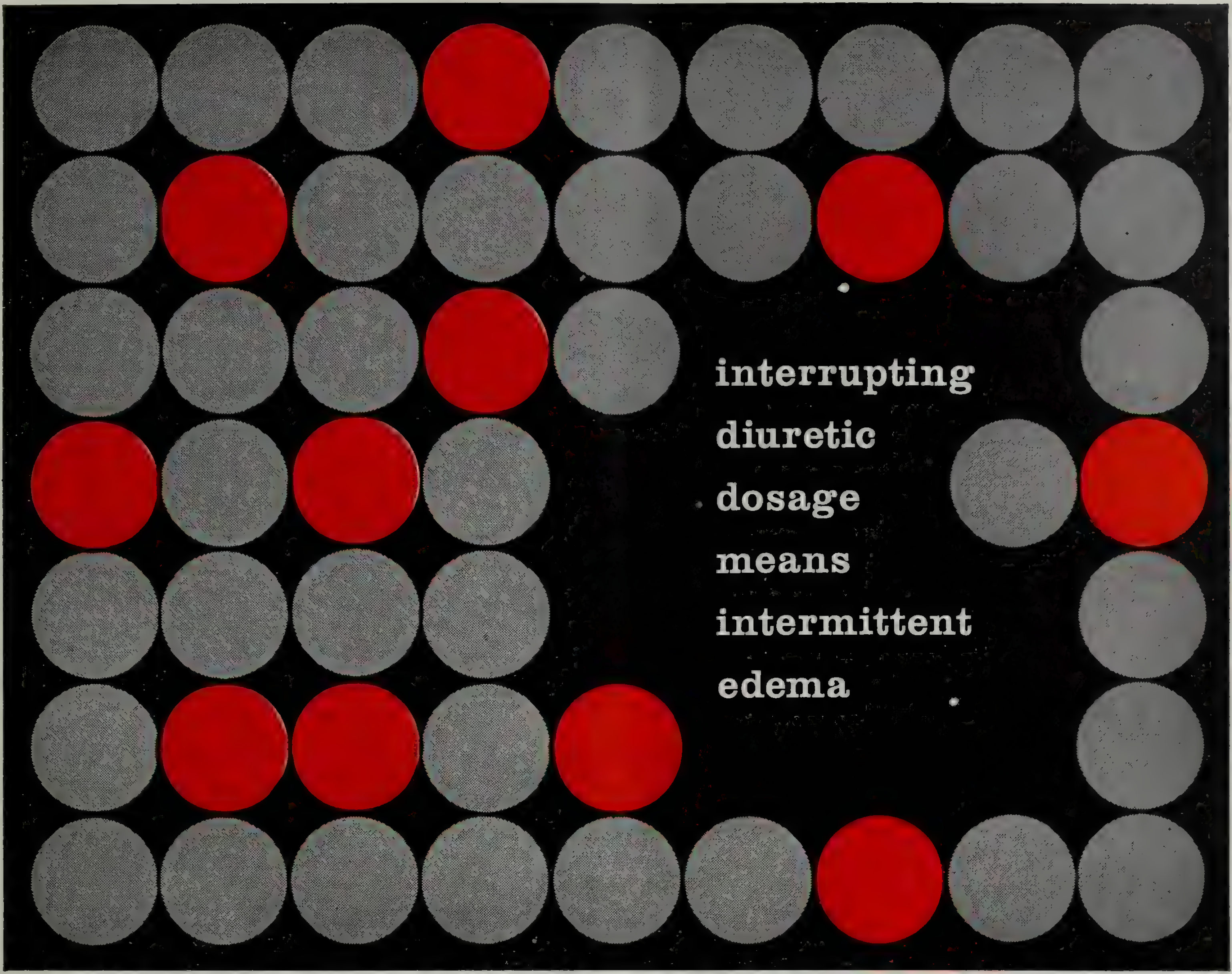
The Wright Medical Society met in regular session in Dr. R. M. Rogers' office in Mansfield on the evening of Feb. 1, 1917. Owing to the inclemency of the weather the attendance was small but the interest was good.

TWENTY-FIVE YEARS AGO

Jefferson City had the distinction of having entertained the Fiftieth Annual Meeting of the Association which occurred in 1906 and now is preparing to entertain the Seventy-Fifth Annual Session. The Association in reality is older than seventy-five years having been organized in 1850. Meetings were held annually from 1850 to 1866 but no meetings were held preceding and during the Civil War. The Association is therefore this year celebrating its eighty-second birthday but its seventy-fifth Annual Meeting. Plans for the Jefferson City session of the Association, May 23 to 26, are well under way.

Dr. John F. Chandler, Oregon, was appointed county physician of Holt County and deputy state commissioner of health at a session of the Holt County Court the first week in January. The tenure of office is three years.

Actual construction of the Federal hospital for the defective delinquents now confined in Federal prisons was begun at Springfield February 2. It is estimated that the completion of the institution will require sixteen months. Springfield was selected by the Federal Department of Justice over thirty-five other cities because among other reasons the altitude is favorable for the treatment of tuberculosis and because there is direct rail con-



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nection from Springfield to several Federal penitentiaries.

In recognition of his generous suport of medical research, Dr. Henry S. Wellcome, LL.D., of London and Washington, honorary president of the American Pharmaceutical Association, was knighted by King George and his name included in the New Year's Honors List. Dr. Wellcome is president of Burroughs Wellcome and Company, of London, manufacturers of chemicals. Dr. Wellcome is a native of Wisconsin and became a British subject by naturalization.

Dr. Francis Reder, an enthusiastic participant in medical affairs in St. Louis and the state for thirty-four years, was installed as president of the St. Louis Medical Society, January 5.

The Dunklin County Medical Society meeting was called to order by the president, Dr. W. L. Gossage, Kennett, at Kennett, January 19, at 7:00 p.m. Dr. J. D. Van Cleve, Malden, read an excellent paper on "The History of the Dunklin County Medical Society from 1905 to 1932." In the twenty-seven years of the Society's existence it had been very active except for two years when reorganization took place. Four of the charter members are still among the most active members. Dr. Paul Baldwin, Kennett, has had the honor of being the president four different times in its history; Dr. T. J. Rigdon, Kennett, has been its president twice, and Dr. John D. Van Cleve, Malden, has been secretary during exactly half of the Society's existence and has had the honor of being elected again for that position for 1932. A round-table discussion concerning the $9.00 dues for the County and State Associations was held. It has been intimated by some that the dues seem too high. All members present freely discussed the subject and concluded that the dues were not too high for the actual value received. It is the belief of the Society that those who so speak are not interested in Society work and would not be active at one third the price.

The first regular meeting of the Nodaway County Medical Society for 1932 was held in the lecture room of St. Francis Hospital, Maryville, on January 8. The meeting was called to order at 7:45 p.m. by Dr. Charles T. Bell, who introduced and welcomed Dr. W. M. Hindman, Burlington Junction, as president for the current year.

TEN YEARS AGO

The Annual Session of the Association will convene March 30, 31, and April 1, 2, in Kansas City. The Jackson County Medical Society will be host at a smoker and entertainment at Hotel President. The Annual Banquet in Honor of Past Presidents will be held on Monday evening at which time the President and President-Elect will speak and George F. Lull, M.D., Secretary of the American Medical Association, will deliver the principal address.

S. P. Simmons, M.D., Marshall, has been appointed county physician of Saline County. Rex L. Diveley, M.D., Kansas City, was installed as president of the American Academy of Orthopedic Surgeons at a meeting in Chicago, January 25 to 30. Evarts A. Graham, M.D., St. Louis, has been made an honorary member of the French Academy of Surgery.

The St. Louis County Medical Society held its regular meeting on January 22, at 8:30 p.m., at the Health Center, St. Louis County Hospital, Clayton.

Members of the Barton, Bates, Cass, Cedar, Dade, Dallas, Henry, Hickory, Polk, St. Clair and Vernon County Medical Societies attended a dinner meeting at the Hotel Mitchell, Nevada, on January 30, at 6:30 p.m. This is the first of what is planned to be a series of dinner meetings for the medical societies of this area. Forty-one members of these societies attended.

The South Central Counties Medical Society met at the El Patio Hotel, Cabool, January 17, with the following members and visitors present for dinner: Drs. J. R. Mott, Hartville; J. A. Fuson, Mansfield; R. A. Ryan, R. W. Denney and A. C. Ames, Mountain Grove; Garrett Hogg, Jr., Cabool; R. T. Harsh, Houston; Leslie Randall, Licking; C. P. Callihan, Willow Springs; E. C. Bohrer and Rollin H. Smith, West Plains; Harry D. Silsby and John P. Ferguson, Springfield. After dinner the meeting was called to order by the President, Dr. Mott.

The following County Societies have paid dues for all members: Camdem, Morgan, Moniteau, Audrain, Miller, Ste. Genevieve, Laclede, Webster, Mercer, Callaway, Scott, DeKalb, Taney, Mississippi, Dallas-Hickory-Polk, Pike, Barton-Dade, Carroll, Harrison, Howard, Perry and Bates County Medical Societies.

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Woman's Auxiliary

Mrs. Charles *(Susan)* Shepherd, *President*

"For lo! The winter is past, the rain is over and gone: the flowers appear on the earth: the time of the singing of birds is come, and the call to convention is heard in our land."

The Woman's Auxiliary to the Missouri State Medical Association will hold their thirty-second annual meeting at the same time the Medical Association is meeting. The dates are: March 31, April 1, 2, 1957; the place: Muehlebach Hotel, Kansas City, Missouri.

We wish to extend a cordial invitation to the wives of all doctors attending the convention to come and register, and to participate in all the social functions as well as attend the general meetings of the Auxiliary.

The Woman's Auxiliary to the Jackson County Medical Society will be hosts to our convention. Mrs. William Bayne Allen and Mrs. William H. Hickerson are cochairmen of arrangements. These two facts are enough to assure all of us three wonderful days.

We hope you will give your "Fair Lady" a little vacation by bringing her with you to our convention. The Auxiliary will deam it a pleasure to help entertain her. In fact we would like to have a chance to show prospective members our organization in action. Our tentative program is printed on page 224. Our National president, Mrs. Robert Flanders of New Hampshire will be with us for the three days; Mrs. Oscar Robinson of Texas, president of Southern Medical Auxiliary, will also be with us. Many social innovations are planned which should prove pleasant.

There is to be a Buffet Supper on Sunday evening. This evening of special entertainment is for all visiting doctors and wives. Tickets are available at Registration desks. The festivities include, music (songs your mother never taught you) and special observance of "Doctor's Day." We do hope you and your lady will plan to attend.

TRAVELS

My traveling agenda, since last reported November 1, has taken me to Perry County for a luncheon talk to the auxiliary composed of twelve members. This nice group of members claim the distinction of being the most prolific in the state, yet find time to assist in nurse recruitment and do much of the recommended auxiliary program. The same evening I drove on to Cape Girardeau for a delightful dinner meeting with the Cape auxiliary which numbers forty-one. These girls acted as hostesses for the Southeast Clinical Conference held there last fall and have sponsored a series of electrically transcribed radio programs, plus all routine auxiliary work.

On November 26, I met with the Mineral Area Auxiliary at a luncheon and learned first hand of their work in the School for Retarded Children. They have twenty-two members. Much interest was evidenced in current health legislation.

December 7 took Mrs. Armand Fries, president-elect, and I in the other direction, to Pettis County to observe an auxiliary conscientiously carrying out just about every phase of the auxiliary program. It was an inspiration to my tired old eyes and ears. Members had sponsored a first aid class, raised their quota for A.M.E.F., had prepared the script and were to appear on a television show, were presenting a program on the needs of the psychotic child, and are to have a Safety program to present the GEMS (Good Emergency Mother Substitutes) program. This is a safety training course for baby sitters, and many other things space does not permit mentioning. They number thirty-one members.

December also included my regular attendance at St. Louis County Auxiliary meeting to be entertained at their annual Christmas party with the medical society, to hear a novel version of "I've Got a Secret."

To Cooper County, on an icy day, for a luncheon talk with more doctors' wives doing a good job and concentrating on a Nurse Scholarship. They send a girl through Nursing school every other year, no mean feat considering their small number of members. Mrs. Robert Haynes and Mrs. Alex McBurney, past presidents of the State Auxiliary, were also guests. December 17, to Johnson County for a joint dinner meeting with the medical society and auxiliary. This fine auxiliary is one of the newer ones and with only nine members have raised the funds for a full three year scholarship for a nurse who will graduate this year. A very civic minded group of workers.

Mrs. Armand Fries and Mrs. William Grundmann went with me to Festus, in Jefferson County, for a 100 per cent attendance meeting. These women say they love their meetings together and proudly work together on the projects recommended from state and national.

February 12-15, to Lafayette-Ray, Buchanan, Nodaway-Atchison-Gentry-Worth, Clay and Cole Counties with a side trip into Kansas City to meet with the Convention Committee. This assignment necessitates doubling up with luncheon meetings and dinner meetings on the same day.

Conclusion: I view with alarm, the demands made upon a state Auxiliary president, but thank God for a kind and understanding husband and

(Continued on page 220)

0% **EFFECTIVE** in respiratory infections cluding the 25% due to resistant phylococci.[1-3]

% **EFFECTIVE** in dermatologic and mixed ft tissue infections including the 22% sistant to one or more antibiotics.[3-6]

.6% **EFFECTIVE** in genitourinary infec- ns including the 61% resistant to other tibiotic therapy.[2,5]

% **EFFECTIVE** in diverse infections includ- g the 21% due to resistant pathogens.[1,5]

.7% **EFFECTIVE** in tropical infections in- uding those complicated by heavy bacte- al contamination or multiple parasitisms.[7]

1. Carter, C. H., and Maley, M. C.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 51. 2. Shalowitz, M., and Sarnoff, H. S.: Personal communication. 3. Shubin, M.: Personal communication. 4. La Caille, R. A., and Prigot, A.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 67. 5. Winton, S. S., and Cheserow, E.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 55. 6. Cornbleet, T.: Personal communication. 7. Loughlin, E. H.; Mullin, W. G.; Alcinder, L., and Joseph, A. A.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 63.

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(Continued from page 214)

son and a strong back. The pay is mighty poor but one cannot measure the satisfaction and pride in adding one's small bit.

WE MAKE THE PRESS

An article from the *St. Louis Globe Democrat,* Sunday, Jan. 27, 1957, covering the joint fund raising event of St. Louis City and St. Louis County Auxiliaries is reprinted with permission. (Jackson County, Pettis and probably several others used this same idea.)

After reading the invitation for "Quiet Evening at Home" should there be a demand for some of these tickets, contact either your local auxiliary president or write directly to our state chairman, Mrs. Maximilian Weitman, 204 Lancaster, Clayton 24, Mo. (credit will be given to your local auxiliary in either event). This is tax deductible.

Missouri Auxiliary averaged only 50c per member last year and our modest quota is $1 per member this year but we hope to go way over this. Our national A.M.E.F. quota is $140,000 this year.

THE INVITATION

"Your benefit tickets enclosed entitled you to spend an evening at your own fireside in any comfortable way you please.

"Think of it! No dressing up. No baby sitter, no crowd, no parking problems. What is it worth to you to spend an evening at home? Are you tired of benefit performances?

"The Woman's Auxiliary to the St. Louis County Medical Society has chosen Thursday evening, January 31, as Stay-at-Home-Night.

"The price of the ticket? $1 per person. This will go to the A.M.E.F. (American Medical Education Foundation). $10 or more will place you among our more 'Relaxed Patrons.'

"How else can you buy an evening's fun, deduct the price from your income tax, and have the satisfaction of helping a good cause?

"The desperate need of medical schools to maintain their high standards in the face of rising costs is your concern. Every dollar you contribute goes to the 82 medical schools as the A.M.A. pays all operational costs.

"Make your checks payable to the 'A.M.E.F.' and mail them in the enclosed envelope."

The newspaper story, by Joan Foster, follows:

THEY RAISE MONEY NEW WAY: BY PEDDLING PEACE AND QUIET

"Women are an ingenious lot, but doctors' wives hit an all-time high for figuring out angles when it comes to raising funds for pet projects. This week the auxiliaries of the City and County Medical Societies are peddling peace and quiet.

"Letters are in the mail to society members and friends. Inside are benefit tickets. The recipient is the one who benefits . . . by getting a little rest and a 'quiet evening at home.'

"The letter reads in part: 'Are you tired of benefit performances? Think of it! No dressing up. No baby sitters. No crowd. No parking problems. What is it worth to you to spend a quiet evening at home?'

"The letter goes on to explain that $1 will buy a restful evening but $10 will put donor among the 'Relaxed Patrons.'

"It's all very clever and will probably raise a mint of money for the American Medical Education Foundation, a society project authorized by President Eisenhower (actually the Federal Charter was authorized by Congress) to raise money from the medical profession to be used in medical schools for teachers' salaries, equipment and other needs and emergencies that may arise. Ford Foundation matches what A.M.E.F. raises.

"In horse and buggy days doctors' wives did their part by dropping around with hot broth and calves' foot jelly for the patients. Today the doctor's wife joins a medical society auxiliary and tears around doing everything from raising money to pay for a medical student's tuition and to educate the public on health matters to working in hospitals and teaching survival and first aid courses.

"The first auxiliary to a medical society was founded in St. Louis in 1922 during an American Medical Association convention. The county group was organized first, but within a few days wives of doctors belonging to the St. Louis Society had followed suit. (The impression in the above statement is erroneous but is statistically true—both auxiliaries were organized at the request of Mrs. Willard Bartlett of St. Louis who had been appointed State Organizer by the Council of Missouri State Medical Association.)

"Since then, medical society auxiliaries have been founded in 48 states, the District of Columbia, Alaska and Hawaii. The objective of an auxiliary is to 'extend the aims of the medical profession through the wives of doctors to various women's organizations which look to advancement in health and education.'

"The two local chapters are among the busiest people in town. They work in civil defense, with all the health agencies, such as American Cancer Society, and the Heart Association, in Red Cross work, at setting up health information programs, at fund raising for medical scholarships and supporting the medical schools, which usually run in the red. One Auxiliary project is called the 'Gems' short for Good Emergency Mother Substitutes. It is a course in safety for baby sitters.

"The local auxiliaries keep busy, and they do well whatever they do.

"Mrs. Charles Shepherd, president of the Woman's Auxiliary to the Missouri State Medical Association, and past president of the County Auxiliary said, 'A good life means good health and the health of a community is only as good as the health of

(Continued on page 224)

"Highly Effective in Pneumonia"

In one investigation, 75 adult patients with bacterial pneumonia were treated with erythromycin. In his summary, the clinician reported: "It is concluded that erythromycin is highly effective in the treatment of pneumonia due to gram-positive bacteria."[2]

This, of course, is only one of many reports showing the effectiveness of ERYTHROCIN against coccic infections. You'll get the same good results (nearly 100% in common, bacterial respiratory infections) when you prescribe ERYTHROCIN. Abbott

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After a study of 171 patients treated with erythromycin, the investigator wrote: "No serious side effects occurred with prolonged therapy or with doses up to 8 Gm. per day in the severe infections."[1]

Actually, ERYTHROCIN stands on a remarkable record of safety. After four years, there's not a single report of a severe or fatal reaction attributable to erythromycin. In addition, you'll find allergic manifestations rarely occur. *Filmtab* ERYTHROCIN Stearate (100 and 250 mg.), in bottles of 25 and 100. Abbott

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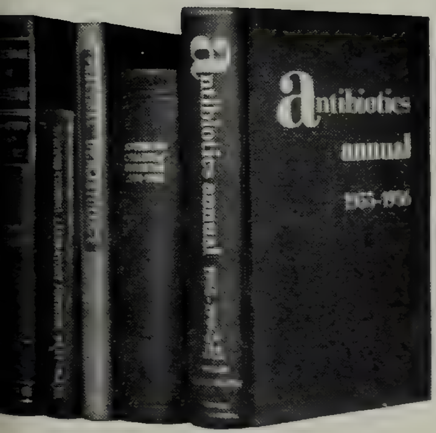

1. Romansky, M.J., et al., Antibiotics Annual 1955-1956, p. 48.
2. Waddington, W. S., Maple, F. C., and Kirby, W. M. M., A.M.A. Archives of Internal Medicine, 1954, p. 556.

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(Continued from page 220)

the individuals in it. The medical profession dedicates itself to this cause, and as the distaff side of the profession we take pride in helping to achieve this by contributing the practical hard work that helps make these projects successful.'

"One might say, a medical auxiliary is the physician's left hand."

WOMAN'S AUXILIARY TO THE MISSOURI STATE MEDICAL ASSOCIATION

Tentative Program, 32nd Annual Meeting

March 31, April 1, 2, 1957
Hotel Muehlebach, Kansas City

Hostess: Woman's Auxiliary to the Jackson County Medical Society

Chairmen of Arrangements: Mrs. William Bayne Allen, Mrs. William H. Hickerson

Sunday, March 31

1:30 p. m. Registration, Colonial Room.

2:30 p. m. Preconvention Executive Board Meeting, Room 473.

6:30 p. m. Social Hour, Buffet Supper, Grand Ballroom. "Doctor's Day" celebration.
Special musical entertainment.
Doctors and their wives and friends invited.
Chairmen: Mrs. Ralph Perry, Mrs Philip Byers.

Monday, April 1

8:00 a. m. Breakfast, for Past Presidents of State Auxiliary.

8:00 a. m. Registration, Room 471.

9:15 a. m. General Meeting.
Mrs. Charles Shepherd, presiding.

12:30 p. m. Luncheon, New Muehlebach Towers Room, lobby floor honoring Mrs. Robert Flanders, New Hampshire, president of the Auxiliary to A.M.A. and Mrs. Oscar Robinson of Texas, president of Auxiliary to Southern Medical Association.

Followed by: "Tornado" Bridge Party.
A strictly Fun event, with loads of prizes.
All members and luncheon guests invited to play.
Chairmen: Mrs. Hector Benoint, Jr., Mrs. Kenneth Hollweg, Mrs. Wallace Stacey.

Tuesday, April 2

8:30 a. m. Registration, Room 471.

9:15 a. m. General Meeting, Room 473.
Mrs. Charles Shepherd, presiding.
(Reports continued, memorial service, business, election of officers, election of delegates to A.M.A., installation.)

1:00 p. m. Luncheon, Carriage Club, 53rd and State Line, honoring councilors and officers of Missouri State Medical Association. Awards, Gold cup to "Outstanding Auxiliary" and others. Presentation of gavel to incoming president.

Followed by: Style Show . . . "Wedding Gowns From Past 100 Years."
Chairmen: Mrs. William Korth, Mrs. Arnold V. Arms, Mrs. Bellefield Atcheson, Mrs. William B. Barry.

4:00 p. m. Post Convention Executive Board Meeting, Carriage Club, Mrs. Armand D. Fries, presiding.

7:30 p. m. Annual Banquet of the Missouri State Medical Association, Muehlebach Hotel.

Missouri State Medical Secretaries and Assistants Society

Edna M. Williams, *President*

How many Missouri doctors are familiar with the organization for medical assistants? Judging from the membership of our society we believe the percentage to be rather low. It is nearly impossible to make personal calls in the offices of all doctors in the state, and we are having to depend upon articles in Missouri Medicine and letters to the offices to let you know about this society. It is sincerely hoped you are taking time to read items concerning our work for it can be of much benefit to you if your assistant is one of us.

This society stresses higher standards of efficiency among women employed as medical assistants. Last May the members of the Medical Secretaries and Assistants Society of Greater St. Louis sponsored a Medical Workshop. There were 227 people in attendance for the one day meeting. It was such a huge success that we hope to be able to have workshops in other districts sometime during the next year. This full day of study on educational subjects pertaining to work in a doctor's office will promote efficiency of the medical assistant.

In helping to further the medical public relations program much has been done by the county societies as well as by the individual members. The Greene County Medical Secretaries and Assistants Society is one of many civic organizations that make up the Women's Civic Clubs Council of Springfield. Last year they sponsored a candidate for the annual "Woman of Achievement" award, and were elated when she won. These same members are giving volunteer services to City Hospital, American Cancer Society, Tuberculosis Society, and two are instructors in the American Red Cross First Aid training program.

The reports are much the same from all over the state. Some societies are giving programs in homes for the aged and in crippled children's hospitals; some have helped in the polio immunization program; some have talked to high school graduating classes on requirements for medical assistant work; others are participating in the Civil Defense program. Probably the greatest work is being done in the individual offices of doctors. The pleasant atmosphere that a patient walks into has been created by the assistant. The warm and genuine friendly greeting given the patient helps him, or her, to know they are among friends. It is because of personal interest of the medical assistant in all phases of the medical profession that these changes for the better are coming about.

Missouri Medicine

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Status Asthmaticus

Treatment With Special Reference to the Clinical Use of Corticotropin (ACTH), Intravenously and by Intramuscular Gel; Prednisone and Prednisolone; and Intermittent Positive Pressure Breathing in Combination With Bronchodilators, Detergents and Enzymes

STANLEY F. HAMPTON, M.D., *St. Louis*

THE MORBIDITY of asthma appears to have been reduced greatly since the introduction of corticotropin (ACTH) and adrenal steroids as therapeutic agents, but it appears that the mortality may not have been lowered by these agents. The United States Vital Statistics, in fact, show an increase in the death rate from asthma since 1948 with perhaps a trend toward a decrease in the last year or two (table 1).[1] Thus, the disease asthma should be respected and the treatment of severe asthma or status asthmaticus should be directed with a view toward reversing each phase of the abnormal physiologic and pathologic changes which characterize the asthmatic state. Such treatment should be directed toward (a) relief of bronchospasm, (b) relief of edema of the bronchial mucosa, (c) removal of tenacious sputum and bronchial mucous plugs, (d) maintenance of blood oxygen saturation and reduction of carbon dioxide retention, (e) relief of anxiety by sedation, (f) control of infection of the respiratory tract, when present and (g) specific treatment of heart failure of cor pulmonale, when present (table 2). Removal of bronchial mucus appears to be the most important therapeutic measure of all as a life-saving measure.

TABLE 1

DEATH RATE FROM ASTHMA

(From the U. S. Vital Statistics Reports[1a, 1b])

Year	*Number of Deaths*	*Rate Per 100,000*
1945	2,521	1.8
1946	2,555	1.9
1947	2,712	1.9
1948	2,627	1.8
1949	4,547	3.1
1950	4,322	2.9
1951	6,871	4.5
1952	6,943	4.5
1953	6,737	4.3
1954	6,136	3.8

TABLE 2

TREATMENT OF STATUS ASTHMATICUS

Relief of Bronchospasm: Epinephrine, Isopropylarterenol (Isuprel, Aludrine, Aerolone, Norisodrine), Ephedrine, Aminophyllin

Relief of Bronchial Edema: Epinephrine, Ephedrine, Isopropylarterenol, Antihistamines, Corticotropin (ACTH), Adrenal Steroids (Cortisone, Hydrocortisone, Prednisone, Prednisolone)

Removal of Bronchial Mucus: Expectorants (KI orally, NaI I.V.); Detergents (Alevaire); Enzymes (Tryptar, Dornase); Intermittent Positive Pressure Breathing (Bennett); Bronchoscopic Aspiration. Endotracheal Tube

Maintenance of Blood Oxygen Saturation and Reduction of Carbon Dioxide Retention: Respirators (Bennett, Drinker)

Relief of Anxiety by Sedation: Chloral Hydrate, Paraldehyde, Ether in Oil (Rectally), Barbiturates, Meperidine (Demerol), No Morphine

Treatment of Infection: Antibiotics, Sulfonamides

Treatment of Right Heart Failure (Cor Pulmonale): Diuretics (Diamox), Digitalis, Salt-Free Diet

RELIEF OF BRONCHOSPASM

Most authorities believe that narrowing of the lumen of small bronchi and bronchioles occurs in asthma. Whereas there is no universally accepted explanation as to the mechanism of this phenomenon, it is generally agreed that spasmodic contractions of the circular muscle fibers of the bronchi and bronchioles takes place. This theory was supported by the report of Huber and Koessler[2] who in 1922 demonstrated thickening of the bronchial musculature in postmortem specimens. Drugs usually effective in relief of bronchospasm are:

From the Division of Immunology, Department of Medicine, Washington University School of Medicine, St. Louis.

The Prednisone (Meticorten) and Prednisolone (Meticortelone) used in this study was supplied by the Schering Corporation.

Presented at the 98th Annual Meeting of the Missouri State Medical Association, St. Louis, Missouri, April 8-11, 1956.

Epinephrine (Adrenalin®) 1-1,000 solution subcutaneously in a dose of 0.25 to 0.5 cc. in adults or in the 1-100 dilution by aerosol; isopropylarterenal (Isuprel®, Aludrine®, Aerolone®, Norisodrine®) in 1-100 or 1-200 dilution by aerosol; ephedrine and ephedrine-like drugs orally; and theophyllin compounds, such as Aminophyllin®. It is well known that whereas the latter preparations are relatively ineffective orally, they are beneficial per rectum, given either in the liquid state or in the form of a suppository, and are most effective when given intravenously. Aminophyllin®, 250 mg. in 10 cc. or up to 1 gram in 1,000 cc., probably is the treatment of choice of bronchospasm[3] in the general therapy of asthma and may be given in the same infusion with iodides and corticotropin (ACTH). An ideal "intravenous cocktail" is 1 gram of aminophyllin, 1 gram of sodium iodide (provided the patient is known to be insensitive to iodides) and 10 to 20 units of ACTH in 1,000 cc. of 5 per cent glucose in water given over eight or more hours.

RELIEF OF BRONCHIAL EDEMA

Edema of the bronchial mucosa in asthma may respond to a certain extent to the same drugs used for bronchospasm. The therapeutic agents of choice, however, are corticotropin (ACTH) and adrenal steroids. Intravenous ACTH, when given continuously for several days or by daily eight hour infusions combined with a nightly intramuscular "booster" injection of corticotropin in gelatin (ACTH gel), seems to afford the best results.[4] The dosage of ACTH, given intravenously, need not be large since it is the continuous administration of ACTH over a prolonged period with its resultant effect on the adrenal cortex, more than the dosage, *per se,* that leads to the desired therapeutic response.[6] Infusions of 10 units per 1,000 cc. per eight hours supplies an adequate amount of ACTH. Whereas continuous infusion for several days, or until the severe state of the asthma is lessened, has been shown to be the most effective mode of administration,[4] the disadvantages (extravasation of the fluid, plugging of the infusion needle, anxiety of the patient) of such technic may preclude its use in some instances.

Daily 1,000 cc., 10 unit, eight hour infusions, combined with an intramuscular injection of 20 to 40 units of ACTH gel eight hours after completion of the daily infusion is a practical method of therapy. Five per cent glucose in water rather than normal saline is the preferred vehicle in order to avoid the excessive sodium retention attributable to ACTH.

The use of ACTH gel intramuscularly in doses up to 80 units daily, preferably in divided doses every twelve hours, though not as effective as intravenous ACTH, offers a sufficiently satisfactory clinical response in patients with asthma to justify its use when intravenous therapy is not practical. Studies at Washington University of 17-ketosteroid urinary excretion in patients treated with ACTH by the three methods outlined, i.e., (1) continuous infusions, (2) intermittent daily infusions combined with one nightly intramuscular injection, and (3) intramuscular injections of ACTH gel, indicate that, in general, the increase in urinary 17-ketosteroids is most prompt and of the greatest magnitude after continuous administration, and the least effect is encountered when all the ACTH is given intramuscularly.* A minimal increase of 17-ketosteroid excretion twenty-four hours after one 40 unit injection of ACTH gel was observed but the excretion after four daily injections approached, in some cases, that of combined daily eight hour infusions and a single nightly intramuscular injection of aqueous ACTH (table 3).

Prednisone and prednisolone, the newer adrenal steroids, have proved to be more effective than cortisone and hydrocortisone in a number of disease states, and have been shown to be valuable in the treatment of asthma.[7-11] To date, we have studied a series of approximately 450 patients suffering from various allergic diseases, of which the most common one was asthma. Our observations reveal that Meticorten® and Meticortelone® are more effective than cortisone or hydrocortisone and that their therapeutic effect approaches that of ACTH gel. It is not within the scope of this presentation to discuss in detail the metabolic effects of these steroids, but we have encountered no clinical signs of sodium retention or elevation of blood pressure in patients treated with 15 to 20 mg. daily of Meticorten® or Meticortelone® for as long as twelve months. Tuberculosis and peptic ulcer, however, are contraindications to the use of either steroid.[12] Glycosuria may occur uncommonly but

TABLE 3

ACTH THERAPY OF ASTHMA
17-KETOSTEROID EXCRETIONS*
(MG per 24 hours)

		17-Ketosteroid Excretions		
	ACTH Dose		After Therapy	
Case	*Per 24 Hours*	*Before*	*24 Hours*	*96 Hours*
	Continuous Infusion			
H. R.	20 units I.V. (10 u. per 1,000 cc.)	18.6	44.3	66.6
	Intravenous & Intramuscular			
S. W.	10 units I.V. 10 units I.M.	9.4	13.9	23.4
F. N.	10 units I.V. 10 units I.M.	13.4	24.7	33.7
	Intramuscular Gel			
B. C.	40 units I.M.	5.9	4.7	20.4
B. J.	40 units I.M.	4.1	5.0	8.6
L. I.	40 units I.M.	8.7	11.6	18.9

* Part of this study has been reported previously.[4]

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* The 17-ketosteroid excretion analyses were performed in the Metabolism Laboratory of Barnes Hospital under the direction of Dr. William H. Daughaday.

control of diabetic patients may be altered significantly, usually only during the period of administration. Moon facies and mental disturbances are reported side effects but appear to occur less frequently than when cortisone or hydrocortisone are employed.[12, 13] Prednisone and prednisolone are about equally effective, there being occasional individual variations in the clinical response in some patients.

Whereas antihistamines are partially effective in reducing bronchial edema in asthma, they are essentially ineffective in severe asthma.

ELIMINATION OF BRONCHIAL MUCUS

The removal of tenacious sputum and bronchial mucous plugs is the most important therapeutic measure in the treatment of severe asthma or status asthmaticus, and may be, indeed, a life saving measure. It is widely accepted that the primary cause of death in asthma is asphyxia or anoxia as a result of excessive bronchial mucous secretion.[14, 15]

Figure 1 is a photograph of the lung of a patient who died from asthma. It shows the thick, tenacious mucus filling a bronchus and extending into bronchioles. The entire bronchial tree, from the smaller bronchi to the terminal bronchioles, was occluded by such mucus.

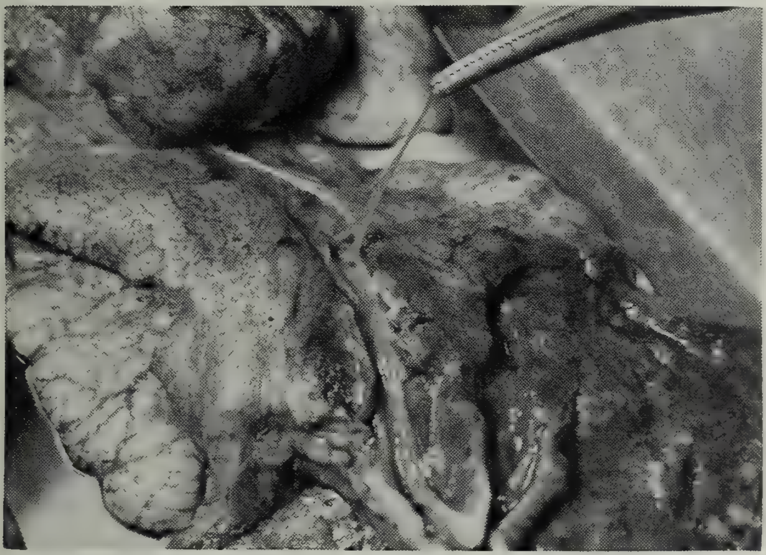

Fig. 1. Case R. S. Lung, showing tenacious mucus extending from a bronchus to bronchioles, after dissection of the bronchus, in a patient who died from asthma.

The agents used in treatment of bronchospasm and bronchial mucosal edema, previously discussed, may promote loosening of mucous plugs so that expectoration of the plugs becomes possible. The use of therapeutic agents, however, whose primary action is directed toward this purpose, is mandatory in status asthmaticus. Potassium iodide, calcium iodide, hydriotic acid, lobelia, ammonium chloride, glycyrrhiza, terpene hydrate, ipecac, glycerin, white pine and wild cherry are all suitable expectorants, but potassium iodide given orally in doses up to 3 to 4 grams daily, and 3 to 4 grams of sodium iodide intravenously daily, remain the expectorants of choice in treatment of severe asthma.

Aerosol therapy, with and without intermittent positive pressure breathing, (IPPB)* has been of recent interest and appears to be of value in promoting bronchial drainage and bronchodilation. Thus, reports by Barach and his associates,[16, 17] Segal and Dulfano,[18] W. F. Miller,[19] Harvey, Ferrer and Cournand,[20] J. B. Miller and his coworkers,[21] Whittenberger,[22] and R. D. Miller,[23] Denton,[24] Bloxsom[25] and others support the use of bronchodilators such as epinephrine or isopropylarterenol, and, of detergents such as Alevaire® in aerosol form in severe asthma.

Segal and his associates[26] found IPPB with various bronchodilators to be of considerable value in the treatment of 203 patients with a variety of disorders of the chest, including asthma. Fowler and his associates[27] reported that IPPB with aerosol bronchodilators offered no particular advantage over aerosol bronchodilators alone but added that in the more seriously ill patients the assistance offered by the IPPB device provides a definite advantage. Miller and his associates,[28] in a study of patients with pulmonary emphysema and fibrosis, questioned the added value of aerosolization with IPPB over ordinary nebulization of bronchodilators but stated that further controlled studies were needed to determine the relative therapeutic effects of long term bronchodilator treatment with and without IPPB. Leslie and Dantes,[29] using an inspiratory-expiratory vital capacity test of pulmonary function, reported that power nebulization of bronchodilator agents was not enhanced by the addition of IPPB in the management of bronchospastic states. Wu and her associates,[30] however, in studying IPPB alone, aerosol of bronchodilators without IPPB and the combination thereof concluded that patients with obstructive ventilatory insufficiency, IPPB with bronchodilators offers the best combination of therapy.

Barach and his associates[31, 32] have stressed the use of an apparatus† by means of which positive pressure breathing is followed by sudden negative pressure, thus inducing coughing. Whereas such an approach is theoretically sound, we have not been impressed with this technic, although our experience is too limited to enable us to pass judgment of its clinical value.

In our hands the combination of bronchodilators, detergents and enzymes administered with IPPB and oral and parenteral expectorants has represented the method of choice for dissolving tenacious sputum and removing bronchial mucous plugs. Of approximately 100 patients so treated, it was our impression that such treatment was instrumental in preventing death in several patients with severe asthma and in others with pulmonary emphysysema and cor pulmonale. A suggested therapeutic regimen is 0.3 to 0.5 cc. of isopropylarterenal in 3 to 5 cc. of Alevaire® given via the nebulizer of the IPPB apparatus every one to four hours.

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* An apparatus for IPPB is the Bennett Respirator, Manufactured by the V. Ray Bennett Associates.

† Available as the Exsufflator, manufactured by the Eliot Medical Plastics, Inc., and the Cof-flator, manufactured by the Oxygen Equipment Manufacturing Corp.

Roettig and his associates,[33] Limber et al.,[34] and Unger and Unger[35] reported favorable results in the use of aerosolized trypsin (Tryptar®) but Prince and his coworkers[36] were not impressed with its usefulness. In our experience, nebulized trypsin may be irritating to the respiratory mucosa and must be administered with caution and only under close observation. The recommended dosage is 125,000 units dissolved in 3 cc. of buffered saline. Because of its irritating qualities, it is suggested that the initial dosage be reduced and that no more than three treatments a day for a total of nine treatments be administered.

Salomon, Herschfus and Segal[37] and Segal and his associates[26] reported good results without untoward effects when aerosolized desoxyribonuclease (pancreatic dornase) was employed as a sputum solvent. They found such treatment to be more effective when administered by IPPB.

Bronchoscopic aspirations or suction or both through an endotracheal tube may be indicated, particularly following therapy with bronchodilators and sputum solvents given by IPPB.

MAINTENANCE OF BLOOD OXYGEN SATURATION AND REDUCTION OF CARBON DIOXIDE RETENTION

It has been shown by Comroe and his associates[38] that oxygen therapy in severe asthma can be a "two-edged sword" in that continuous oxygen therapy may increase carbon dioxide retention and result in carbon dioxide narcosis. The introduction of the IPPB technic has freed oxygen therapy in asthma from the risk attendant on continuous oxygen administration, and has made it possible to maintain blood oxygen saturation. Motley and his associates[39, 40] have shown that IPPB actually increases minute ventilation and facilitates the "blowing off" of carbon dioxide.

Smart, Davenport and Pearson[41] reported that IPPB not only increases the amount of arterial saturation over that produced by conventional oxygen administration, but also is a safer method of giving oxygen.

The use of a carbonic anhydrase inhibitor (Diamox®) has been used in patients with pulmonary emphysema, as reported by Nadell,[42] Cohn et al.,[43] Schwartz and his coworkers[44] and others. Gladston,[45] and others, however, have pointed out that whereas carbonic anhydrase inhibitors may reduce the level of plasma bicarbonate and the arterial pCO_2 in some patients, the actual pH of the blood may be lowered to a point of increasing the acidotic state. In our experience, this agent, in doses of 250 to 500 mg. daily, has been of clinical value in selected cases only, primarily in those with mild heart failure due to cor pulmonale. This drug may induce, in such patients, a beneficial diuresis but should be given intermittently such as for five of every seven days or for three weeks of every month.

The Drinker Respirator is a suitable apparatus for reducing alveolar carbon dioxide tension and improving a state of respiratory acidosis but it is difficult for the patient to synchronize his respirations with the rhythm of the respirator. Thus, unless the patient is unconscious, this technical difficulty usually precludes its use except for short periods of time.

SEDATION

Relief of anxiety is important in the management of severe asthma. Chloral hydrate orally or paraldehyde orally or rectally are probably the most commonly used sedatives. Ether in equal parts of olive oil rectally may be used. Barbiturates are recommended only if the aforementioned sedatives cannot be given for some reason. Demerol® should be given only with great caution and opiates such as morphine should be avoided in the treatment of severe asthma because of their respiratory depressing and bronchial constricting effects. Perhaps the newer sedatives and tranquilizing drugs such as ethyl phenyl glutarimide (Doriden®), ethinamate (Valmid®), chlorpromazine (Thorazine®), ethchlorvynol (Placidyl®) or meprobamate (Equanil®, Miltown®) will prove to be of value.

TREATMENT OF INFECTION

Status asthmaticus is seen usually in patients with so-called intrinsic asthma. Attacks of asthma are known to be precipitated by respiratory infection. Therefore, in severe intractable asthma, evidence of infection should be searched for. In most instances sputum cultures reveal only a normal respiratory tract flora. Where evidence of infection is demonstrable, the appropriate antibiotic or sulfonamide should be administered. Even without clear cut evidence of infection it is justified in most instances to use the broad spectrum antibiotics, such as one of the tetracyclines, in order to combat possible "masked" infection. Furthermore, the use of such antibiotics to cover inapparent infections which may develop as a complication of ACTH or adrenal steroid therapy is warranted. Because of the incidence of hypersensitivity to penicillin, this antibiotic is not recommended except when specifically indicated by bacteriologic studies.

COR PULMONALE

Right heart failure as a result of cor pulmonale secondary to pulmonary emphysema may develop in status asthmaticus. Detailed discussion of treatment of heart failure does not come within the scope of this article. It should be emphasized, however, that improvement of pulmonary ventilation by the various methods discussed is as important in the management of cor pulmonale with failure as is the treatment of the heart failure *per se*, with digitalis, diuretics and salt restriction, as pointed out by Harvey and his associates[20] and Miller.[23]

EXTRINSIC FACTORS

Whereas status asthmaticus usually occurs in patients with intrinsic asthma, extrinsic allergens to which the patient may be sensitive should be searched for and appropriate management instituted.

SUMMARY

1. The treatment of severe asthma or status asthmaticus should include measures for relief of bronchospasm, relief of bronchial mucosal edema, removal of tenacious sputum and bronchial mucous plugs, maintenance of blood oxygen saturation, relief of anxiety, control of respiratory infection and specific treatment of heart failure from cor pulmonale, if present.

2. Epinephrine, isopropylarterenol and theophyllin preparations are effective agents in the treatment of the bronchospasm of asthma.

3. Corticotropin (ACTH) and the newer adrenal steroids, prednisone and prednisolone, are effective agents against the bronchial edema of asthma. The relative merits of the steroids and of ACTH, given intravenously, and of the gel form given intramuscularly are compared.

4. The cause of death in asthma is anoxemia as a result of tenacious sputum and bronchial mucous plugs.

5. Intermittent Positive Pressure Breathing (IPPB), particularly with aerosolization of bronchodilators, detergents and enzymes, is a newer and efficient method of treatment of status asthmaticus. Details of the use of aerosol therapy with IPPB are discussed.

The author expresses appreciation to Dr. Robert J. Glaser for his advice in the preparation of this paper and to Miss Mary C. Johnson for her assistance in compiling the references.

BIBLIOGRAPHY

1. a. Vital Statistics of the United States, Department of Health, Education and Welfare, Public Health Service, National Office of Vital Statistics, 1945-51 (Annual Volumes).

b. Vital Statistics—Special Reports, National Summaries Mortality From Each Cause, United States, 1952-54, U. S. Department of Health, Education and Welfare, Public Health Service, National Office of Vital Statistics, **44** (Feb. 29) 1956.

2. Huber, H. L., and Koessler, K. K.: The Pathology of Bronchial Asthma, Arch. Int. Med. **30**:689, 1922.

3. Young, R. H., and Gilbert, R. P.: The Use of Theophylline With Ethylenediamine (Aminophyllin) for the Control of Bronchial Spasm, J. Allergy **12**:235, 1941.

4. Hampton, S. F.: Intravenous ACTH in the Treatment of Allergic Diseases, J. Allergy **23**:493, 1952.

5. Hampton, S. F.: The Clinical Use of ACTH and Cortisone in the Treatment of Allergic Diseases, South. M. J. **45**:1061, 1952.

6. Thorn, G. W.; Jenkins, D.; Laidlaw, J. C.; Goetz, F. C.; Dingman, J. F.; Arons, W. L.; Streeten, D. H. P., and McCracken, B. H.: New England J. Med. **248**:588, 1953.

7. Barach, A. L.; Bickerman, H. A., and Beck, G. J.: Clinical and Physiologic Studies on Use of Metacortandracin in Respiratory Diseases. I. Bronchial Asthma, Dis. Chest **27**:515, 1955.

8. Arbesman, C. E., and Ehrenreich, R. J.: Meticorten and 9 Alpha Fluorohydrocortisone in the Treatment of Allergic Disorders, J. Allergy **26**:189, 1955.

9. Skaggs, J. T.; Berstein, J., and Cooke, R. A.: Metacortandracin in Chronic Asthma, J. Allergy **26**:201, 1955.

10. Schwartz, E.: Metacortandracin (Prednisone) in Bronchial Asthma, J. Allery **26**:206, 1955.

11. Sheldon, J. M.; McLean, J. A., and Mathews, K. P.: J. Michigan M. S. **54**:1081, 1955.

12. Bollet, A. J.; Black, R., and Bunim, J.: Major Undesirable Side Effect Resulting From Prednisolone and Prednisone, J.A.M.A. **158**:459, 1955.

13. Demartini, F.; Boots, R. H.; Snyder, A. I.; Sandson, J., and Ragan, C.: Comparative Effects of Prednisone and Cortisone, J.A.M.A. **158**:1505, 1955.

14. Clarks, J. A.: Status Asthmaticus or Severe Subacute Asthma, J. Allergy **4**:481, 1933.

15. Bullen, S. S.: Correlation of Clinical and Autopsy Findings in 176 Cases of Asthma, J. Allergy **23**:193, 1952.

16. Barach, A. L.: Remission in Bronchial Asthma and Hypertrophic Pulmonary Emphysema, J.A.M.A. **147**:730, 1951.

17. Barach, A. L.; Bickerman, H. A., and Beck, G.: Advances in the Treatment of Non-tuberculosis Pulmonary Disease, Bull. New York Acad. Med. **28**:353, 1952.

18. Segal, M. S., and Dulfano, M. J.: Chronic Pulmonary Emphysema: Physiopathology and Treatment, New York, Grune and Stratton, Inc., 1953.

19. Miller, W. F.: A Consideration of Improved Methods of Nebulization Therapy, New England J. Med. **251**:589, 1954.

20. Harvey, R. M.; Ferrer, M. I., and Cournand, A.: The Treatment of Chronic Cor Pulmonale, Circulation **7**:932, 1953.

21. Miller, J. B.; Brown, L. L.; Goldfarb, P. M.; Leigh, M.; McVay, L.; Phillips, S. C.; Sellers, D. F., and Zieman, H.: Alevaire Inhalation for Eliminating Secretions in Asthma, Sinusitis, Bronchitis and Bronchiectasis of Adults, Ann. Allergy **12**:611, 1954.

22. Whittenberger, J. L.: Management of Impaired Respiratory Function, Am. J. Surg. **90**:648, 1955.

23. Miller, R. D.: Current Concepts in the Diagnosis and Treatment of Pulmonary Emphysema, Arch. Int. Med. **96**:360, 1955.

24. Denton, R.: The Clinical Use of Continuous Nebulization in Bronchopulmonary Disease, Dis. Chest **28**:123, 1955.

25. Bloxsom, A.: The Use of a New Apparatus for Continuous Nebulization Therapy, South. M. J. **47**:819, 1954.

26. Segal, M. S.; Salomon, A.; Dulfano, M. J., and Herschfus, J. A.: Intermittent Positive Pressure Breathing. Its Use in the Inspiratory Phase of Respiration, New England J. Med. **250**:225, 1954.

27. Fowler, W. S.; Hemholz, H. F., and Miller, R. D.: Treatment of Pulmonary Emphysema With Aerosolized Bronchodilator Drugs and Intermittent Positive Pressure Breathing, Proc. Staff Meet., Mayo Clin. **28**:743, 1953.

28. Miller, R. D.; Fowler, W. S., and Hemholz, H. F.: The Treatment of Pulmonary Emphysema and of Diffuse Pulmonary Fibrosis With Nebulized Bronchodilators and Intermittent Positive Pressure Breathing, Dis. Chest **28**:308, 1955.

29. Leslie, A., and Dantes, A.: Intermittent Positive Pressure Breathing, J.A.M.A. **160**:1125, 1956.

30. Wu, N.; Miller, W. F.; Cade, R., and Richburg, P.: Intermittent Positive Pressure Breathing in Patients With Chronic Bronchopulmonary Disease, Am. Rev. Tuberc. **71**: 693, 1955.

31. Barach, A. L.; Beck, G. J.; Bickerman, H. A.; Seanor, H. E., and Smith, W. H.: Physical Methods Simulating Mechanisms of Human Cough, J. Appl. Physiol.

32. Barach, A. L.; Beck, G. L., and Smith, W. H.: Mechanical Production of Expiratory Flow Rates Surpassing Capacity of Human Cough, Am. J. M. Sc. **226**:241, 1953.

33. Roettig, L. C.; Reiser, H. G.; Habeeb, W., and Mark, L.: The Use of Trypsin in Chest Diseases, Dis. Chest **21**:245, 1952.

34. Limber, C. R.; Reiser, H. G.; Roettig, L. C., and Curtis, G. M.: Enzymatic Lysis of Respiratory Secretions by Aerosol Trypsin, J.A.M.A. **149**:816, 1952.

35. Unger, L., and Unger, A. H.: Trypsin Inhalations in Respiratory Conditions With Thick Sputum, J.A.M.A. **152**: 1109, 1953.

36. Prince, H. E.; Etter, R. L., and Jackson, R. H.: Aerosol Trypsin Therapy in the Treatment of Asthma, Ann. Allergy **12**:25, 1954.

37. Salomon, A.; Herschfus, J. A., and Segal, M. S.: Aerosols of Pancreatic Dornase in Bronchopulmonary Disease, Ann. Allergy **12**:71, 1954.

38. Comroe, J. H.; Bahnson, E. R., and Coates, E. O. J.: Mental Changes Occurring in Chronically Anoxemia Patients During Oxygen Therapy, J.A.M.A. **143**:1044, 1950.

39. Motley, H. L.; Lang, L. P., and Gordon, B.: Use of Intermittent Positive Pressure Breathing Combined With Nebulization in Pulmonary Disease, Am. J. Med. **5**:853, 1948.

40. Motley, H. L.; Lang, L. P., and Gordon, B.: Effect of Intermittent Positive Pressure Breathing on Respiratory Gas Exchange, J. Aviation Med. **21**:14, 1950.

41. Smart, R. H.; Davenport, C. K., and Pearson, G. W.: Intermittent Positive Pressure Breathing in Emphysema of Chronic Lung Disease, J.A.M.A. **150**:1385, 1952.

42. Nadell, J.: The Effects of the Carbonic Anhydrase Inhibitor 6063 on Electrolytes and Acid-Base Balance in Two Normal Subjects and Two Patients With Respiratory Acidosis, J. Clin. Invest. **32**:622, 1953.

43. Cohn, J.; Carroll, D. G., and Riley, R. L.: Respiratory Acidosis in Patients With Emphysema, Am. J. Med. **17**:447, 1954.

44. Schwartz, W. B.; Relman, A. S., and Leaf, A.: Oral Administration of a Potent Carbonic Anhydrase Inhibitor ("Diamox"). III. Its Use as a Diuretic in Patients With Severe Congestive Failure Due to Cor Pulmonale, Ann. Int. Med. **42**:79, 1955.

45. Gladston, M.: Respiratory and Renal Effects of a Carbonic Anhydrase Inhibitor (Diamox) on Acid-Base Balance in Normal Man and in Patients With Respiratory Acidosis, Am. J. Med. **19**:516, 1955.

Surgical Diseases of the Urethra and Bladder

Treatment in Children

GRAYSON CARROLL, M.D., *St. Louis*

MARKED PROGRESS has been made in the surgical treatment of conditions of the urinary bladder in children. I will discuss them in relation to: (1) obstructions at the bladder neck, (2) obstructions at the ureterovesical orifice, and (3) extrophy of the bladder. Obstructions must be detected and corrected early if irretrievable damage is to be prevented.

SYMPTOMS

Recognition of symptoms in infants and small children require careful, intelligent observation on the part of the mother and sympathetic attention of the family physician or pediatrician. The flushed face and straining at urination and frequent or continuous wetting of the diapers may mean some serious pathologic condition.

Analysis of the urination may be helpful. True bed wetting or enuresis can be distinguished from incontinence by the fact that the bed may be dry for hours before the bladder fills and involuntary emptying is initated by the detusor impulses. A true incontinence is a continous dripping of urine. An overflow incontinence is not continuous but overflows continuously after a period of continence following urination. Urgency of urination will closely simulate incontinence but is periodic and can be checked with effort on the part of the child.

EXAMINATION

Observation of the act of urination is most revealing. A stream without force in a child is significant. It may be a tight meatus easily detected and corrected, or something more serious.

Application of some simple office examination will place symptoms in the category of minor causes or in a category which requires the little patient to have a more thorough examination.

Residual urine determination is most important. If the passage of a catheter after urination recovers 1, 2 or more ounces it is significant. The amount of residual urine does not always indicate the amount of pathology. Dr. Leon Howard devised a good method to determine the residual urine in children. Mineral oil is injected into the bladder through the catheter after emptying and, if recovered the following day or later, it indicates true residual urine. Likewise 20 per cent Skiodan solution injected in the bladder and found present by the roentgenogram after voiding indicates that the patient is carrying residual urine.

The cystogram which is easily performed in the office is often informative (fig. 1). A dilated bladder, bladder diverticuli, ureteral regurgitation, indicating a patent ureteral orifice, give evidence of real trouble. Large dilated ureters and hydronephrosis can often be demonstrated in this manner (fig. 2).

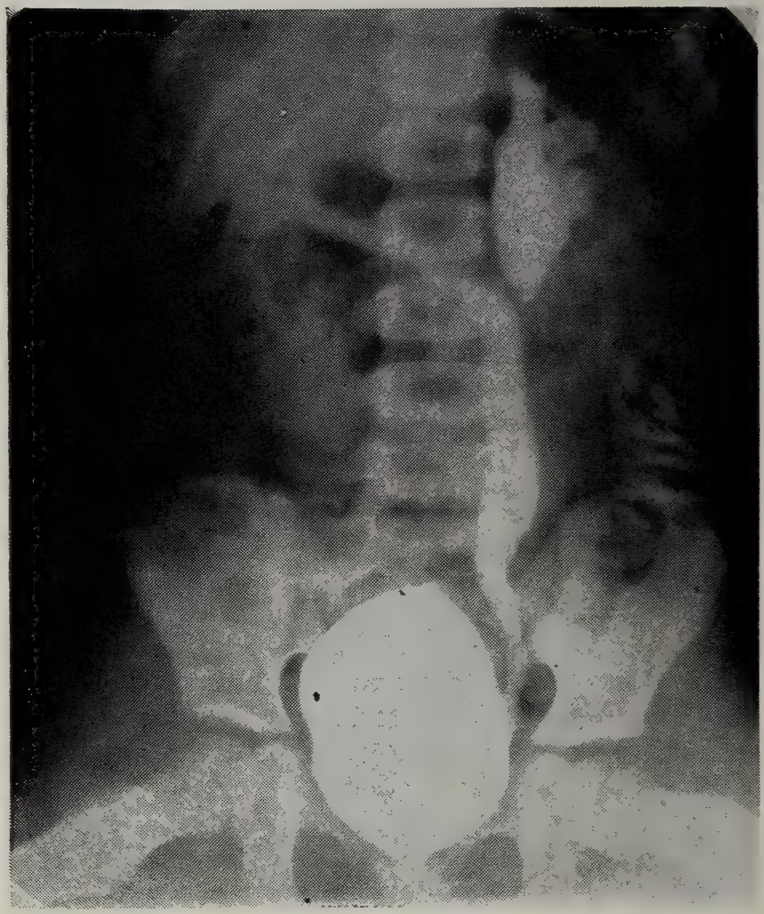

Fig. 1. Cystogram taken in office showing regurgitation with dilated ureter and pelvis relieved by transurethral resection.

Intravenous urograms and intramuscular urograms should be done but are not always diagnostic and should be used for screening purposes rather than considered definitive for surgical intervention.

Cystoscopic examinations in the infant and small child are feasible and without serious hazard. The modern pediatrician makes frequent use of it.

OPERATIVE PROCEDURES

The baby resectoscope has been a valuable addition in the correction of bladder neck obstructions. It is quite safe in the fulguration of bladder polyps which are commonly the cause of urinary retention. The cutting of a contracture in the male

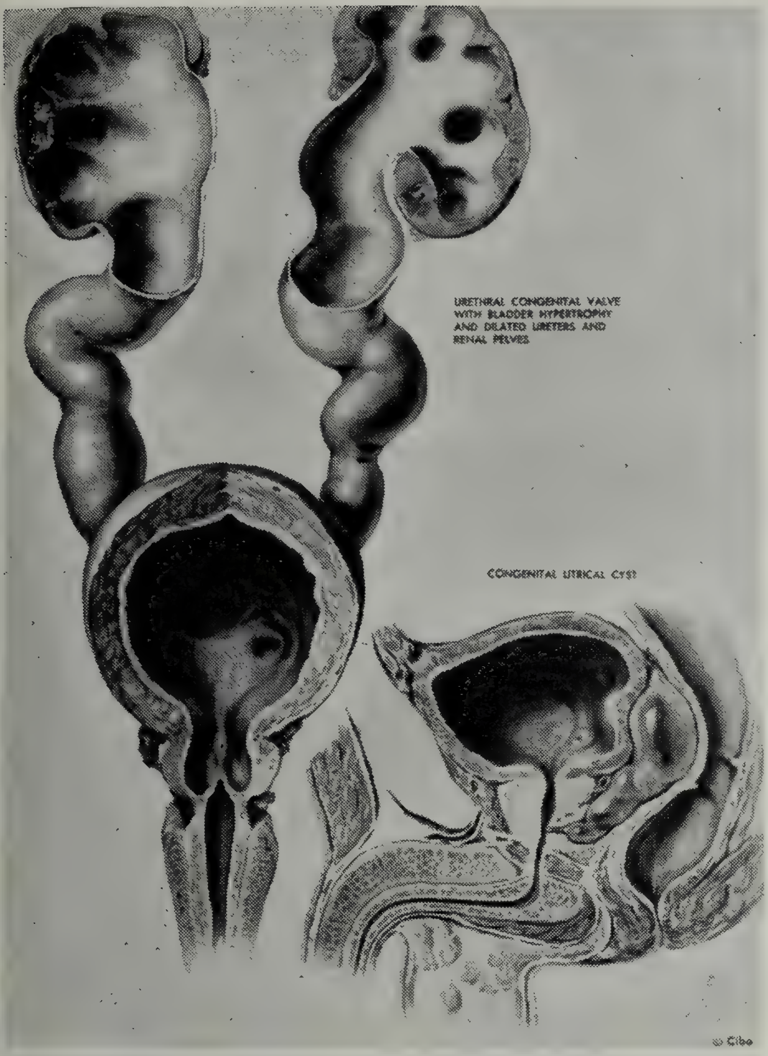
URETHRAL CONGENITAL VALVE WITH BLADDER HYPERTROPHY AND DILATED URETERS AND RENAL PELVES
CONGENITAL UTRICAL CYST
© Ciba

Fig. 2. Silent bladder neck obstruction. Congenital valve producing dilated ureters and hydronephrosis.

is a safe procedure but is increasingly hazardous in the female due to the thin area between the bladder neck and the vagina. Extreme caution is necessary also to avoid the cutting of the female sphincter which is less prominently delineated than in the male. It is often better to repeat the procedure than to be too bold.

There is a tendency among urologists to swing back to the open operation if the contracture is marked and the damage to the upper urinary tract is extensive. The adequacy and safety of this open operation has been enhanced by the use of the retropubic incision popularized by Edgar Burns. This deserves some elucidation. The incision is made directly over the bladder neck extending into the posterior urethra and the bladder, thus laying open widely the area to be observed and treated. The contracted internal orifice is treated by removing a wedge from this collar formation and stitching horizontally the incision which was made vertically, thus widening the opening and insuring the patency after healing has taken place (figs. 3 and 4).

The external sphincter which is the controlling one is not harmed since it is under vision.

Many patients have more than one lesion and recovery does not take place until they all are recognized and corrected.

URETERAL STRICTURE

A narrowed ureter as it traverses through the intramural portion of the bladder with a dilated ureter above is not uncommon. This is often congenital. In the embryo the ureteral stalks from the Wolffran duct, protrudes into the entodermal bladder and becomes the trigone and posterior urethra. Between the 12 millimeter and 28 millimeter embryo a complete occlusion of the lower ureter is noted with later reopening as first described by Chivalle. The failure to reopen explains the narrow ureter and the ureterocele seen so early in infants and should be remembered as a possibility in any newborn baby.

The classical open operation has been to slit the contracted orifice over the groove director or probe, which has been inserted into the orifice and suture the cut margins back to the mucous membrane of the bladder adjacent. This insures patency but regurgitation takes place in this type of procedure.

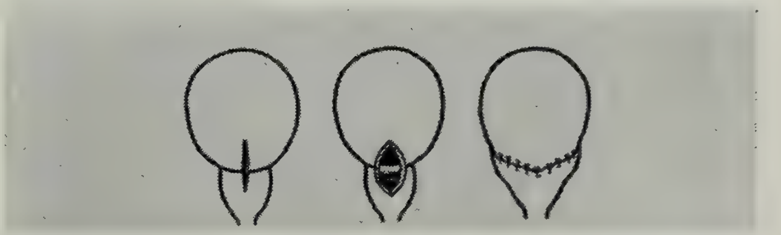

Fig. 3. Bradford Young's technic for enlarged vesical orifice.

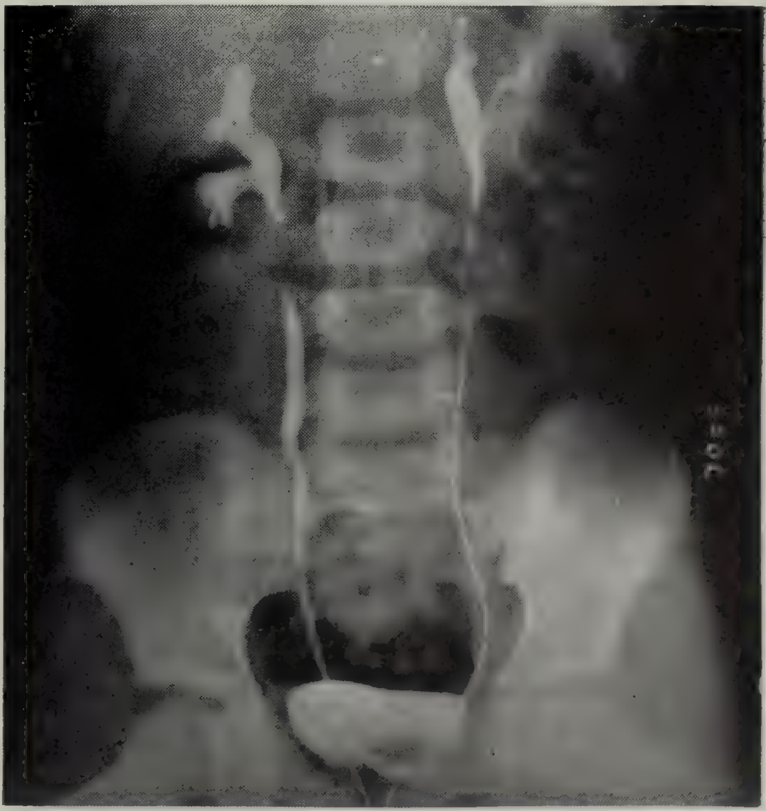

Fig. 4. Postoperative result two years after open operative removal of obstruction and repair of ureterovesical orifice by Hutch operation.

To overcome this Dr. Hutch of the Veterans Hospital in Virginia has recently devised a more satisfactory procedure (fig. 5). The ureter is freed

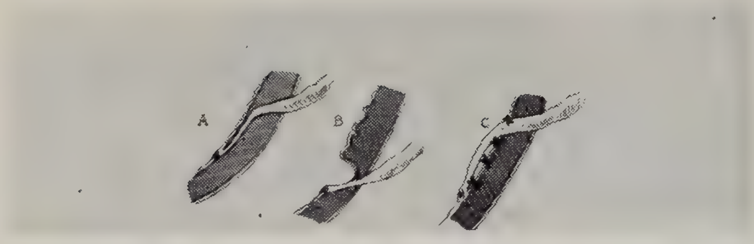

Fig. 5. The Hutch operation for correction of ureteral regurgitation.

from adjacent structures on the outside of the bladder including the intramural portion and then, by opening the bladder, the ureter is mobilized from the inside. It is drawn down for 1 or 1½ cm. and attached to the trigone. The opening in the bladder is sutured beneath the ureter which was drawn down. Ten of twelve patients with regurgitation due to paraplegic bladders have been improved by this procedure.

REGENERATION OF TISSUE

Operations recently have been devised utilizing two things: the regeneration of mucous membrane and the regeneration of the bladder.

It is well known that a mucous membrane lining is quickly laid down around a tube. Efforts to avoid or destroy fistulous tracts demonstrate this well known tendency. Recently this apparent enemy to healing has been utilized as a favorable account of nature in urinary diversion and in regeneration of a ureter or bladder. Not only has mucous membrane been known to regenerate but also muscular tissue, both in the ureter and bladder. Dr. Phillip Beglin, resident urolgist at Desloge Hospital, has just completed some investigative work in dogs in which the bladder was removed and the ureters attached directly into the internal orifice of the urethra. When a small amount of the trigone was retained, regeneration was observed to take place and the dogs lived from five to six months. Cystoureterograms taken at this time are shown in figure 6.

Dr. Bohne of Detroit used a plastic ball as an artificial substance about which the bladder could reform and actually produced the regeneration of a functioning bladder in the human being.

Extrophy of the bladder has been treated by a complete cystectomy and transplantation of the ureters in the rectosigmoid. Although this has proven to be successful in many instances, the maladjustment of the electrolytic balance and ascending infection has prevented universally good results and stimulated efforts to improve this type of repair.

The problem presented by extrophy is the absence of anterior wall and pubic bone together with external sphincter and urethra. Dr. Sweetser of Minneapolis has presented some successful cases in which, by plastic manipulation, he has succeeded in making a satisfactory closure of the bladder and closure of the abdominal wall and, in some instances, provision of adequate voluntary urinary control. The reconstruction of a urethral sphincter has been effected by utilizing the transverse post-urethral intersymphyseal band and the incomplete triangular ligament which was found to be present in all of his patients studied. This tissue is dissected free and sutured in front of the newly formed urethra. I understand that Dr. John Lattimer of New York has succeeded in performing this operation successfully also.

Dr. Tracy Powell has approached the repair of

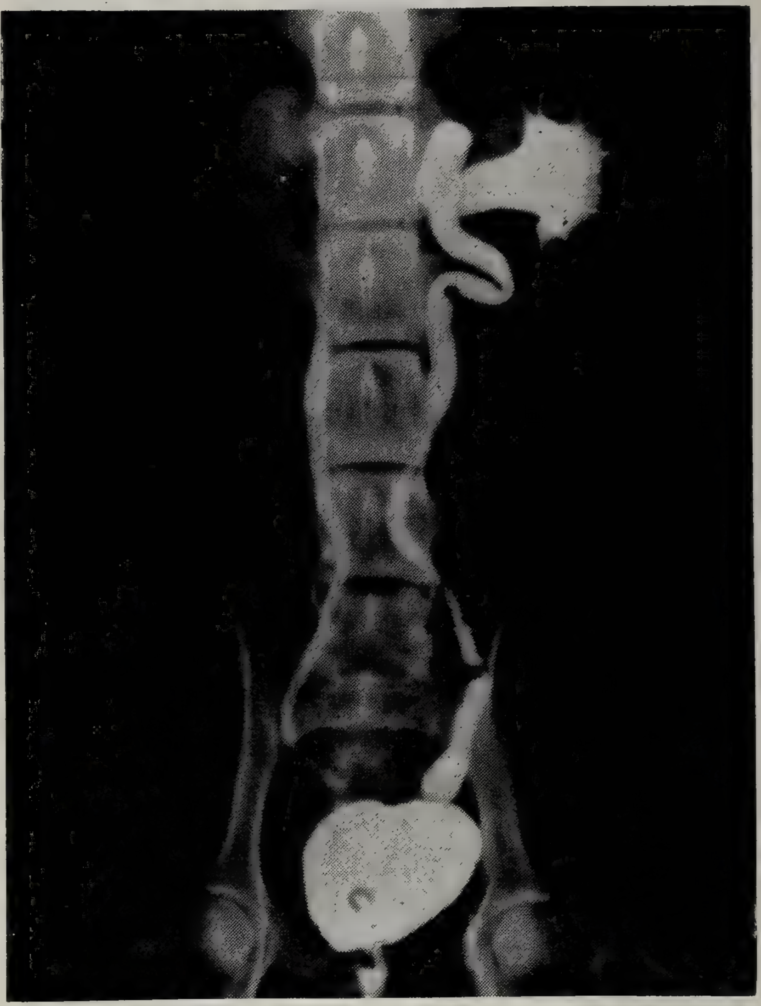

Fig. 6. Regeneration of dog's bladder after removal of all but trigone and reinsertion of ureters into trigone. Unexplained fatty degeneration of kidney was observed.

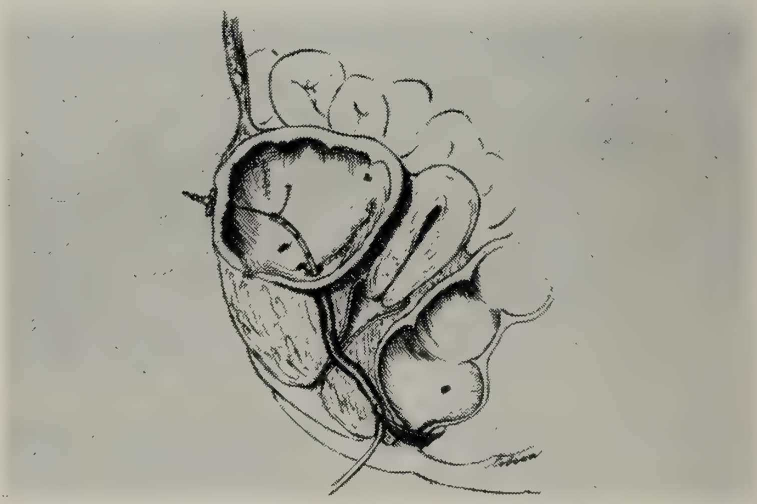

Fig. 7. Mucous membrane channel produced from bladder travelling under anal sphincter to produce continence in extrophy of the bladder.

Crossed Renal Ectopia

Report of 9 Cases and Review of the Literature

E. HUMBER BURFORD, M.D., AND CYRUS E. BURFORD, M.D., *St. Louis*

CROSSED RENAL ectopia is a rare congenital anomaly in which both kidneys lie on the same side of the body. This condition presents fusion of two kidneys or two separate kidneys lying one above the other without fusion.

According to the literature prior to 1935, more than half of these cases were found at autopsy. Recently, however, increasing numbers are found before death, clinically and at operation. In the authors' series 11 per cent were found at surgery and 89 per cent clinically with one of these proven later at autopsy.

The incidence of crossed renal ectopia with fusion varies from one case to each 750 to 1,000 individuals. Abeshouse reviewed the literature in 1947 collecting 333 cases of crossed renal ectopia with fusion, adding four cases of his own. Saylor and Gordon reported an additional case in 1951. Harris, reviewing the literature in 1939, collected twenty-five cases of crossed renal ectopia without fusion and added three cases of his own, later adding a fourth. There were two cases reported by Zide and Maher in 1943.

The purpose of this paper is to report nine cases of crossed renal ectopia, seven of them with fusion and two of them without fusion.

This series of nine cases has been collected from private practice since 1939. Five cases have had absent kidney tissue on the left side with the crossed renal ectopia on the right, while four cases were crossed to the left with no kidney on the right side. Additional congenital anomalies were noted only in one case, a female who had an imperforate anus and a dextrocardia. The ages varied from 18 to 70 years and there were two other cases more than 50 years, 52 and 56 years. The average age was 36 years. Six cases were males and three were females.

In crossed renal ectopia, the ureteral orifices are in normal position, but the ureter from one of them passes across the midline of the body to the opposite side. The ectopic kidney may be lateral or prevertebral in position and may be as high as the other kidney or as low as the hollow of the sacrum. The ectopic kidney usually is the lower of the two and the pelvis usually faces the spine, but in rare circumstances these conditions may be reversed. The ectopic kidney in fusion may be so intimate as to produce an almost indistinguishable mass of renal tissue known as a lump or pancake kidney, the fusion may be so fine as to have only a narrow isthmus of renal tissue. Embryologically, the cause for this condition has not been determined.

Usually there are no characteristic symptoms, but those noticed are more often produced not so much by the abnormal position as by the pathologic changes brought on by the anomaly itself. Pain, palpable mass, infection, hypertension, albuminuria have all been the cause of cystoscopic investigation which revealed the condition. Many patients have no symptoms whatsoever.

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Surgical Diseases—Continued

extrophy of the bladder in an entirely different manner. He has utilized the extensive regrowth of mucous membrane tissue which forms a fistulous tract from the bladder extending beneath the rectal sphincter, thus having an artificial urinary urethra emerging underneath the anal sphincter adjacent to the anal fecal opening. A flap of the bladder mucosa was used in one instance and an isolated portion of the ileum used to form the tract in another patient. Dr. Powell states that the little girl in whom an ileal segment was used was able to "void an excellent stream and remains perfectly continent" (fig. 7).

These procedures are recited to illustrate the many efforts that are being made by urologists over the country to improve the surgical results in these infants and children. It is obvious that the operations on extrophy of the bladder just recited are still in their formative stage. By utilizing nature's efforts to lay down mucous membrane and the ability of the bladder to regenerate, better functional results will be attained.

In summary I have attempted to present the more recent improvements and the operative procedures in infants and children. Technical details have been omitted. Attention has been called to the importance of early recognition of symptoms which indicate thorough diagnostic procedures so that these early lesions may be found before irreversible damage has been done.

539 N. Grand Ave.

CASE REPORTS

Case 1. Mrs. M. G., a 24 year old physician's wife, 8 months pregnant, reported with hematuria. Her blood pressure was 108/70 and urinalysis revealed a bacillary infection. Cystoscopic examination with pyelograms revealed a 7 cc. capacity of the right renal pelvis and 20 cc. capacity of the left. Pyelograms showed the left ectopic kidney crossed over to right with fusion (fig. 1). The patient recovered from infection, delivered a normal child and has not been heard from since.

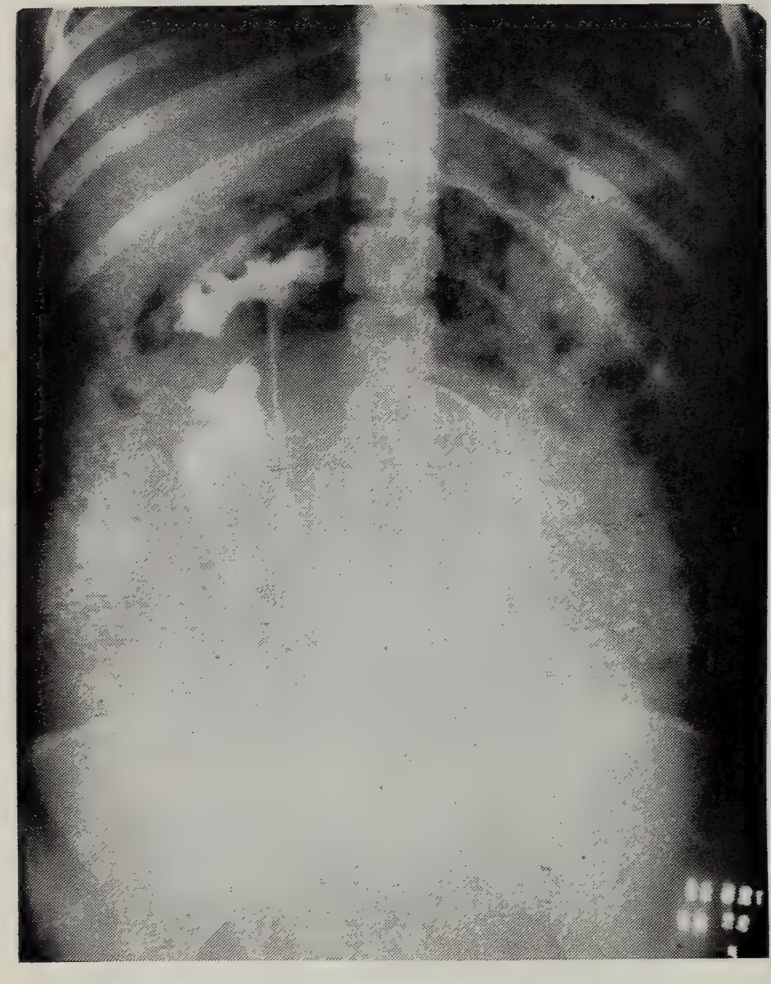


Fig. 1. Case 1.

Case 2. Mrs. N. W., a 27 year old white female, was operated on for an acute appendicitis and the surgeon found an ectopic unfused crossed left kidney. The patient stated that she had noticed a palpable mass on her right side for months. Her blood pressure was 130/90. The urinalysis was normal. Cystoscopy requested by the surgeon revealed normal bilateral P.S.P. appearance time. Pyelograms confirmed the findings at surgery but unfortunately the films were destroyed before salvage. The patient apparently has had no more urinary difficulty.

Case 3. H. G., a 38 year old white male with blood pressure of 140/85 and with no symptoms directly referable to the urinary tract was cystoscoped. P.S.P. returned in good concentration bilaterally in five minutes. Anatomically normal ureteral openings were observed in the bladder and pyelograms showed no kidney substance on the left, but crossed renal ectopia with fusion on the right. In this case the right kidney appeared to be rotated with the calyces pointing medially and the left ectopic crossed kidney lay at the level of the promontory of the sacrum and just to the right of the midline (fig. 2).

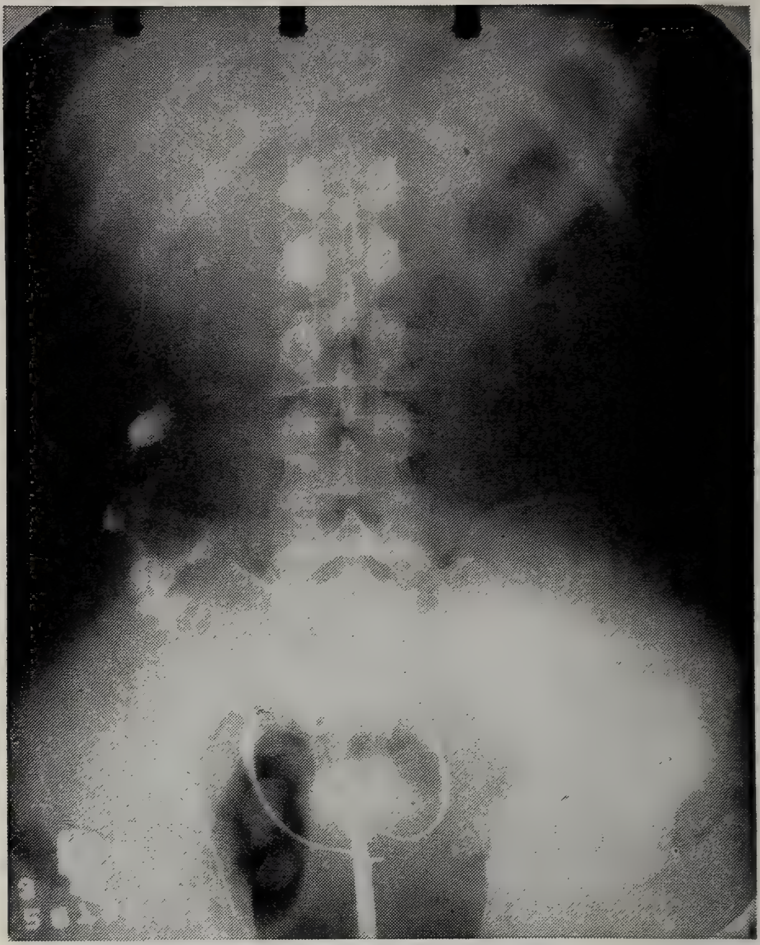


Fig. 2. Case 3.

Case 4. K. S., a 56 year old white male with a blood

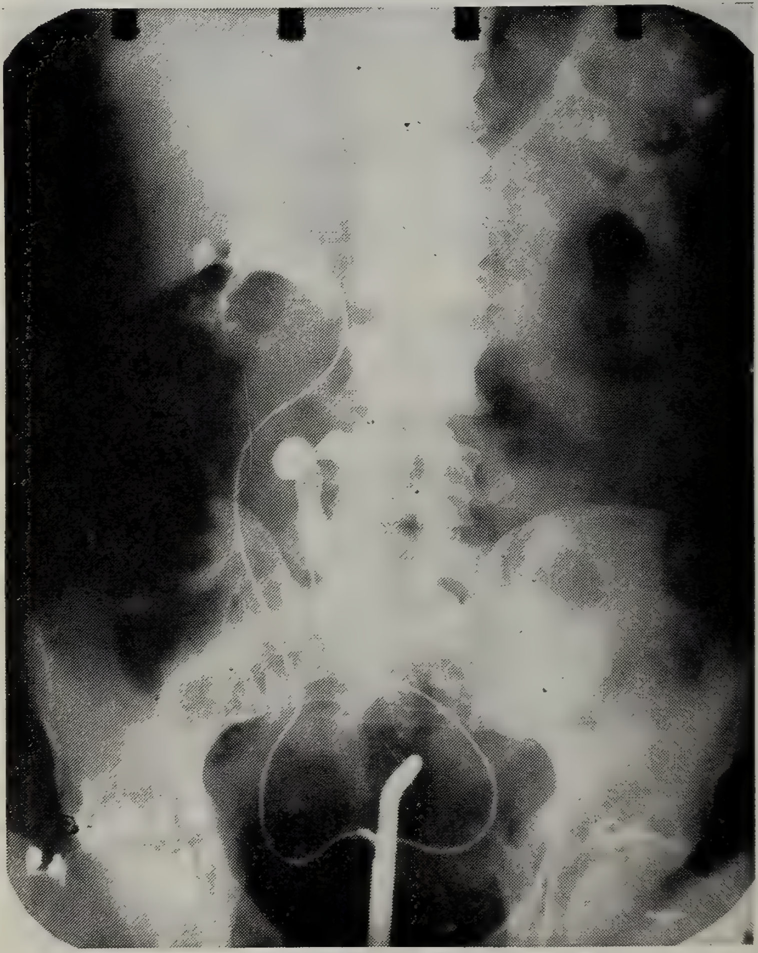


Fig. 3. Case 5.

pressure of 104/78 was seen for attacks of bearing down pain in both flanks and nocturia. Rectal examination revealed an enlarged, stony hard, irregular, fixed prostate gland which was judged to be advanced carcinoma. He had 180 cc. of residual urine and urinalysis showed a faint trace of albumin. Cystoscopy revealed absent kidney tissue on the right side with a crossed renal ectopia on the left. Unfortunately the pyelograms were destroyed by the hospital before salvage. The patient later died, not of prostatic carcinoma, but of cardiac failure, and autopsy corroborated the clinical findings.

Case 5. J. L. W., a 40 year old white man with blood pressure of 124/80, was seen because of intermittent right kidney colic. His urinalysis was normal and on cystoscopy, P.S.P. function was good on the right but delayed to ten minutes on the left. There was no kidney substance on the left side, it being a crossed ectopia to the right without fusion. This patient has been followed over a period of ten years without further symptoms of mishap (fig. 3).

Case 6. W. W., a 52 year old white male, was investigated cystoscopically because of a blood pressure of 185/110 since there were no symptoms directly related to the urinary tract. The urinalysis was normal except for a one plus albumin. The P.S.P. was delayed, appearing in seven minutes bilaterally. Cystoscopically the ureteral orifices were normally placed. Pyelograms showed absence of kidney substance on the right but a crossed renal ectopia with fusion to the left with bilateral hydronephrosis and hydroureters (fig. 4).

Case 7. G. A. B., a 70 year old white male, complained that his urine never cleared following a prostatectomy elsewhere some three years before. Cystoscopically his bladder contained three small Grade I papillomata which were resected. P.S.P. returned in good concentration in five minutes from the left kidney but weakly in ten minutes from the right or ectopic kidney. Pyelograms revealed no kidney substance on the right side with crossed renal ectopia with fusion in a lump or pancake type to the left. An asymptomatic calculus was observed in the left kidney (fig. 5).

Case 8. J. R., an 18 year old white female with a blood pressure of 120/84, was examined because of a one plus albuminuria. She had had an imperforate anus corrected and a dextrocardia was found on physical examination and seen on x-ray. Her nonprotein nitrogen was 27 mg. per cent and cystoscopic examination revealed a lump or pancake kidney on the left with the crossed fused ectopic right kidney (fig. 6). A marked hydropelvis required surgery which consisted of bilateral nephrostomy and a plastic repair of the left or upper renal pelvis. The patient married and delivered a normal child three years later.

Case 9. M. M., a 24 year old white male with a blood pressure of 192/122, was examined cystoscopically for the elevated blood pressure and attacks of frequency. His nonprotein nitrogen was 44 mg. per cent. On cystoscopy there was no renal tissue on his left side but a crossed fused ectopic left kidney to the right side. The P.S.P. returned bilaterally in good concentration

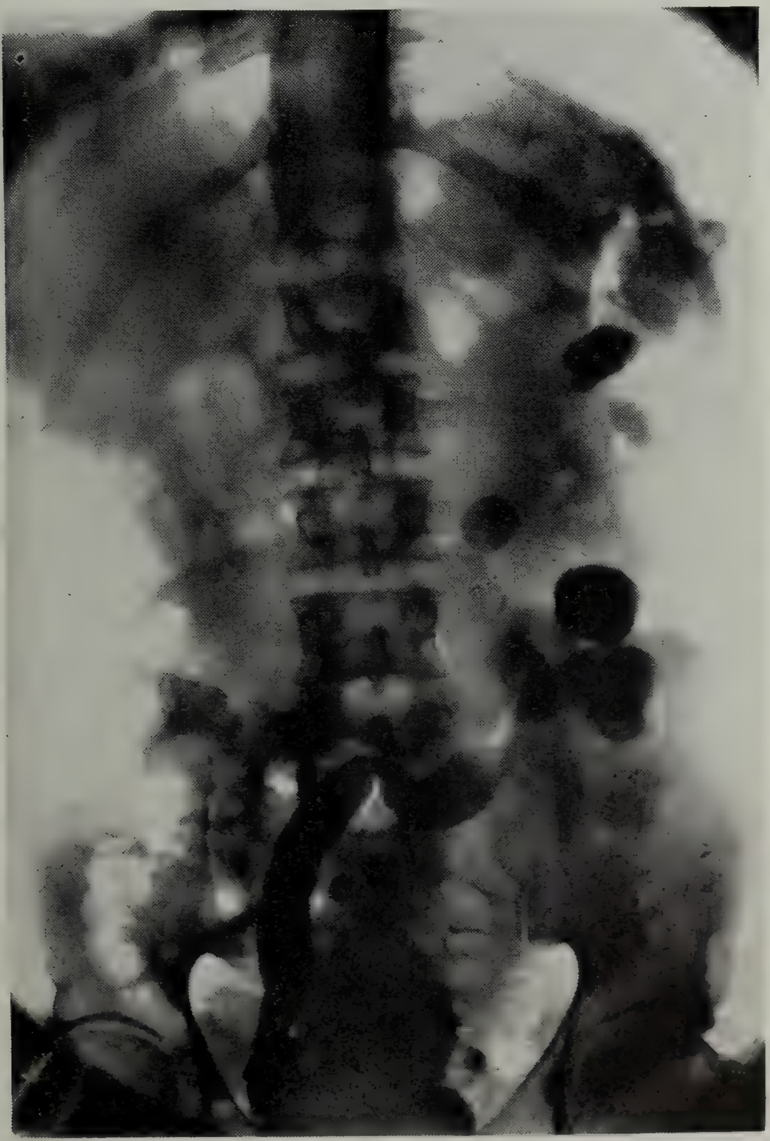


Fig. 4. Case 6.

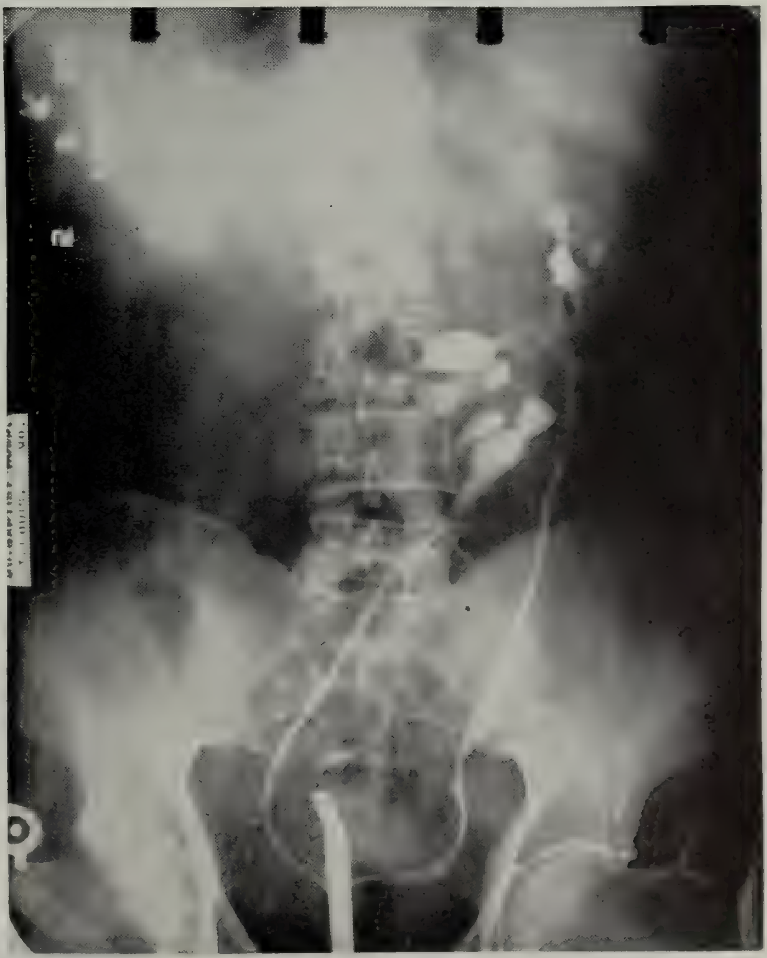


Fig. 5. Case. 7.

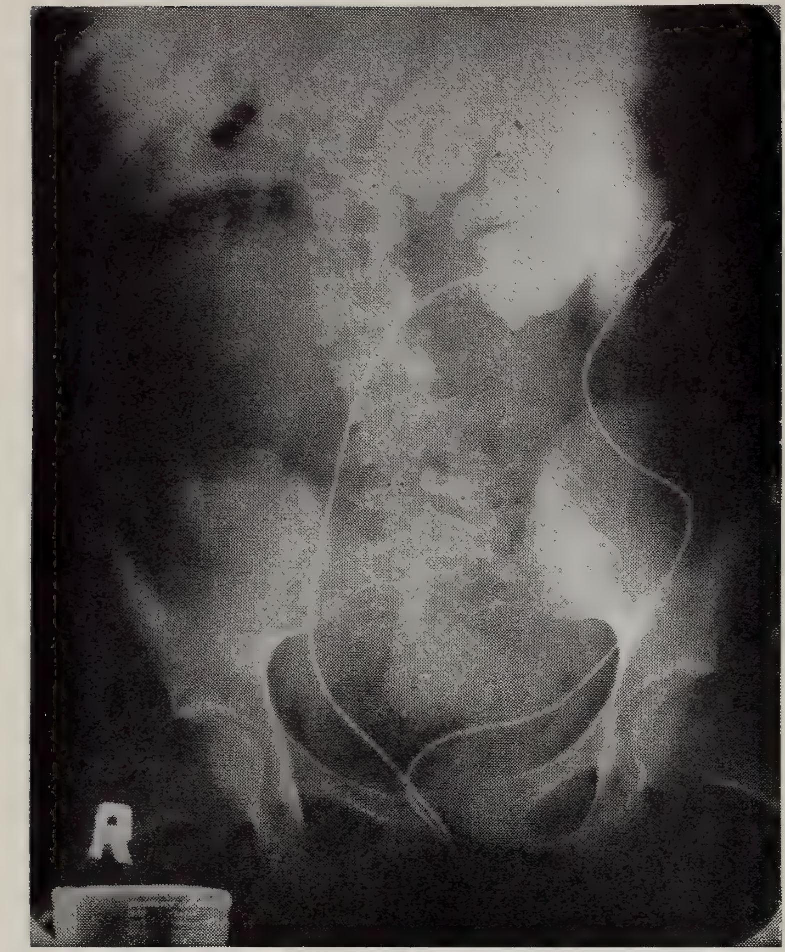


Fig. 6. Case 8.

in three minutes. The patient was separated from the military service for this condition and his elevated blood pressure (fig. 7).

The literature has been reviewed and nine additional cases reported of crossed renal ectopia, seven of them fused and two of them unfused. This is only one of several urologic anomalies that requires a thorough urologic examination to prevent possible surgical errors.

958 Arcade Building.

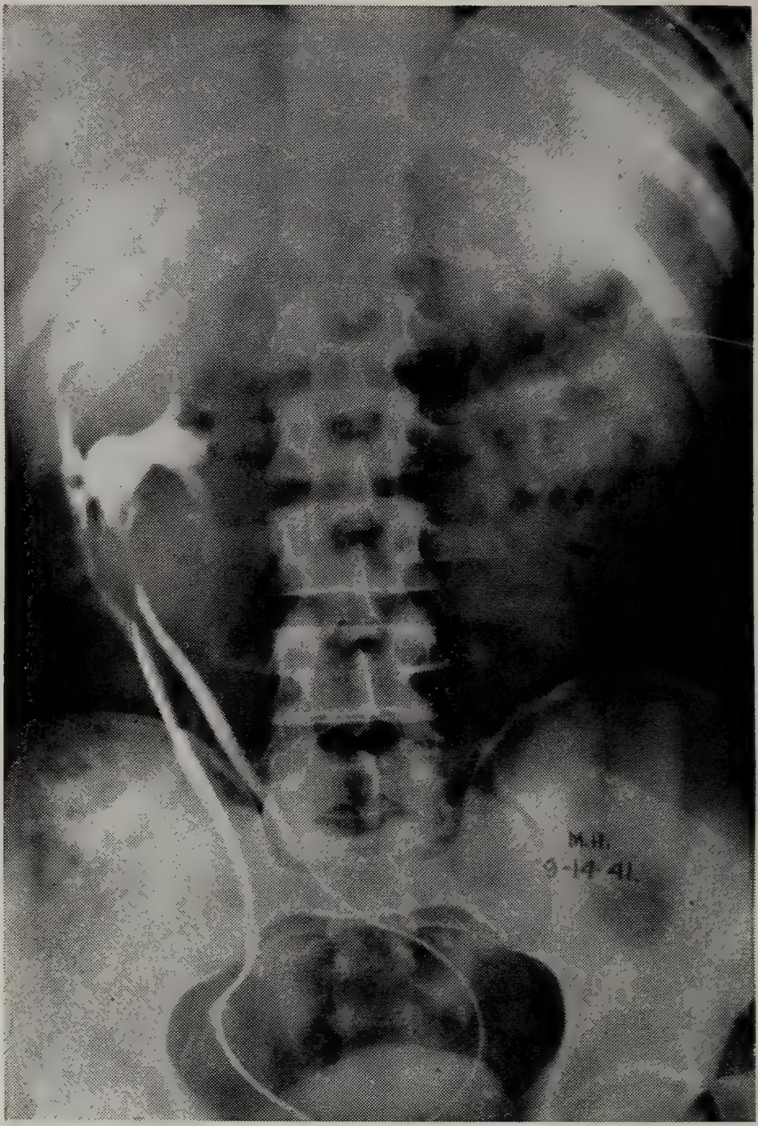


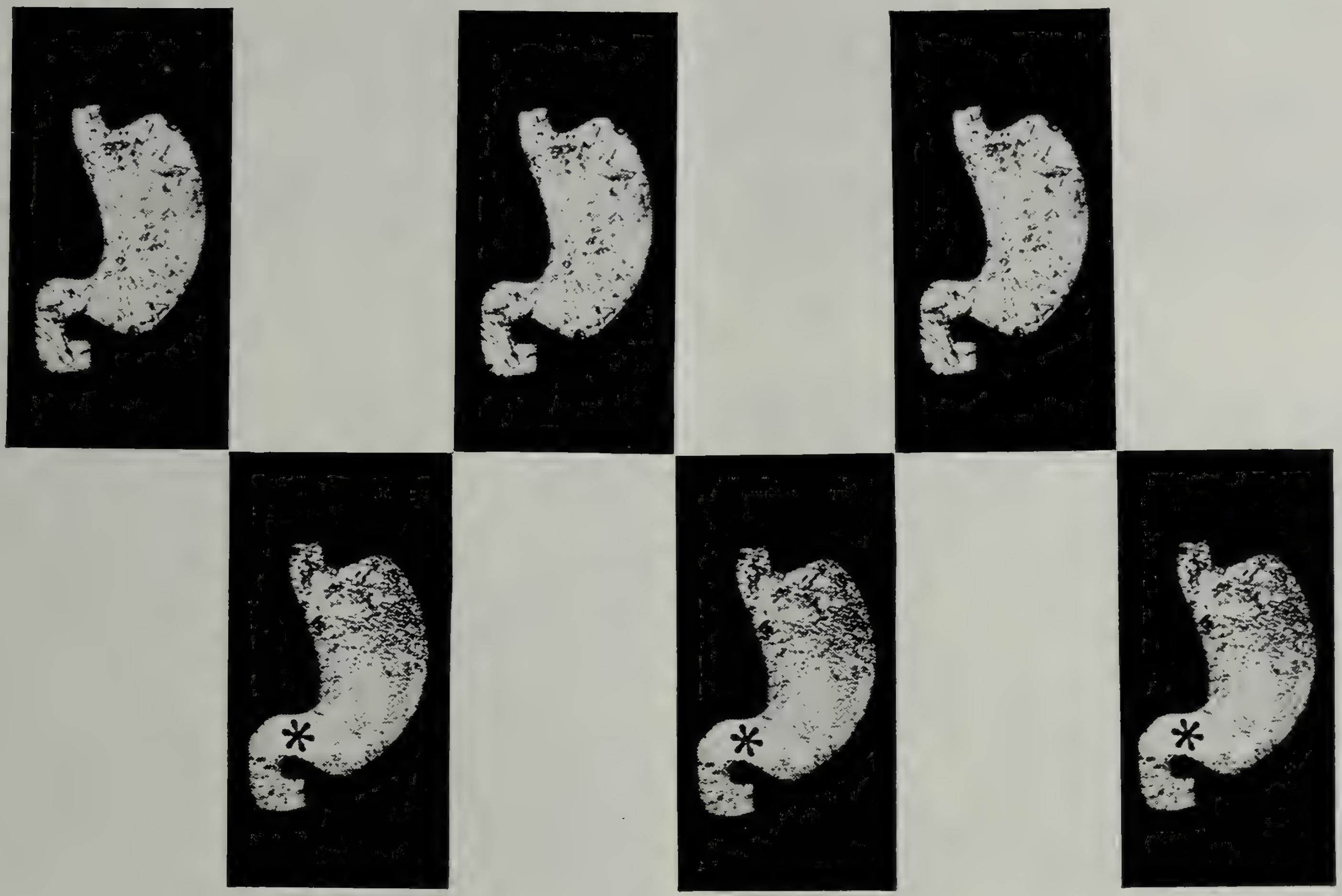
Fig. 7. Case 9.

BIBLIOGRAPHY

Abeshouse, Benjamin S.: Am. J. Surg. **73**:658-683 (June) 1947.
Beneventi, Francis A.: J. Urol. **55**:252-255 (March) 1946.
Harris, Augustus: J. Urol. **42**:1051-1068 (December) 1939.
Nation, Earl F.: Am. J. Surg. **68**:67-72 (April) 1945.
Saylor, Mark, and Gordon, Harold: J. Urol. **65**:968-971 (June) 1951.
Zide, Harry A., and Maher, E. J.: J. Urol. **50**:560-563, 1943.

Correction: In the article "Refractory Congestive Heart Failure Treatment" appearing in the February issue of Missouri Medicine, a subhead appears on page 126 as "Hypochloremic Acidosis." This should have read "Hyperchloremic Acidosis."

TRUE ANTICHOLINERGIC ACTION



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SEARLE

Case Report

Spontaneous Rupture of a Major Renal Artery

Diagnosed by Translumbar Aortography.

W. F. MELICK, M.D., AND J. J. NARYKA, M.D., *St. Louis*

A CAREFUL SEARCH of the literature has failed to disclose any reports of rupture of a major branch of the renal artery in the absence of trauma or disease. We cannot find any case in which trauma to the renal artery has been correctly diagnosed by any x-ray measures. Aneurysm of the renal artery is an infrequent finding; Abeshouse[1] has reported twelve cases in 100,421 autopsies. If a rupture of the renal artery such as in this case would be spontaneously contained, it is likely that a false aneurysm could result. Few such false aneurysms have been reported.[2]

CASE REPORT

A 28 year old white man was transferred to the Missouri Pacific Hospital because of sudden, severe right costo-vertebral angle pain and hematuria (IPGM+O 12,727). Four days previously the patient awoke with a sudden severe right flank pain which radiated to the anterior abdomen. He vomited twice and was admitted to his local hospital where it was noted that his urine was grossly bloody. A diagnosis of probable renal calculus was made, and he was treated by bed rest and the administration of morphine and atropine. The next day the patient had a similar attack except that the urine was clear. An intravenous urogram showed no calculi, with a nonfunctioning right kidney, so he was transferred to the hospital.

On admission the symptoms had completely subsided. The routine urinalysis was negative for pus, blood, albumin and sugar. The blood studies showed a hemoglobin of 10.9 grams, red count 3.8 million, white count 7,200 with a normal differential. The nonprotein nitrogen was 31, the sugar 92 and the Kahn negative. There was no history of previous urinary difficulty and no family history of any. Physical examination, however, did disclose a large non-tender mass replacing the right kidney, and a KUB plate showed a mass in the region of the right kidney. Repeat intravenous urograms confirmed the fact that there was no evidence of right renal function; the left kidney was entirely normal. Cystoscopy and retrograde studies of the right kidney showed a bizarre right pyelogram suggestive of right renal tumor (Fig. 1). Because of the peculiar appearance, however, translumbar serial aortograms were made according to our previously described technic.[3] These showed a definite leak of the dye into the mass (figs. 2, 3).

Right nephrectomy was carried out through resection of the twelfth rib and a retroperitoneal approach. A large encapsulated mass was found outside the kidney and adherent to the capsule. To not lose the tamponade effect this was removed intact, together with the kidney. The operative specimen was immediately perfused through the renal artery after tying catheters into the renal veins. The result is shown in figure 4. The same picture that appears on the serial aortograms was obtained. The gross operative specimen is shown in figures 5 and 6. The patient had an uneventful postoperative course and was discharged twelve days later.

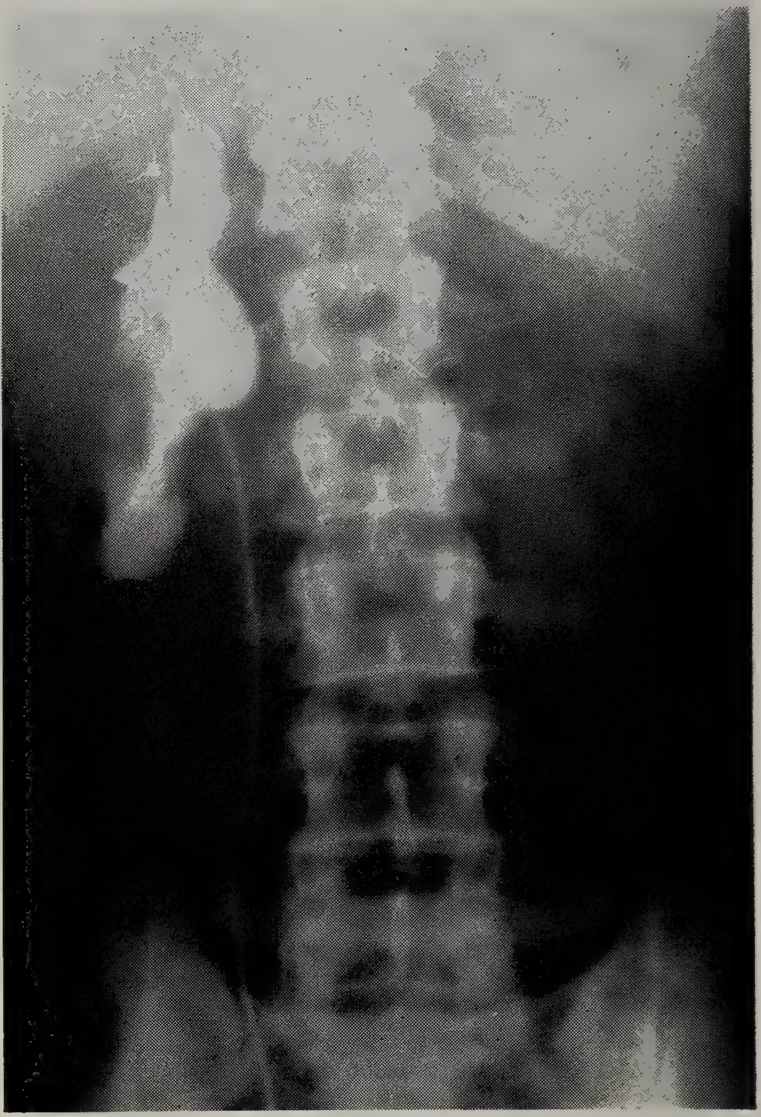


Fig. 1. Right retrograde pyelogram. Bizarre distortion suggests renal neoplasm.

DISCUSSION

The patient was again questioned after the oper-

From the Department of Urology, St. Louis University School of Medicine, and the Urological Service, Missouri Pacific Hospital, St. Louis.

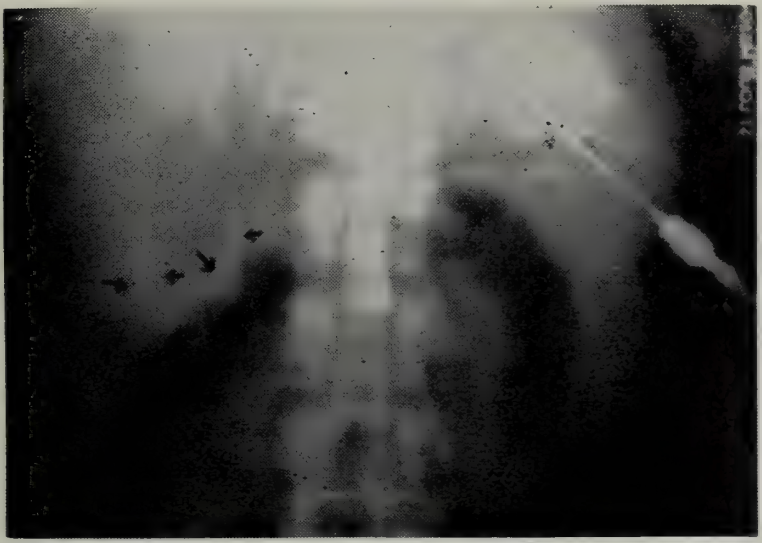


Fig. 2. Serial translumbar aortography, dye leaking out of major branch of the renal artery into the mass. Arrows outline the course of the dye.

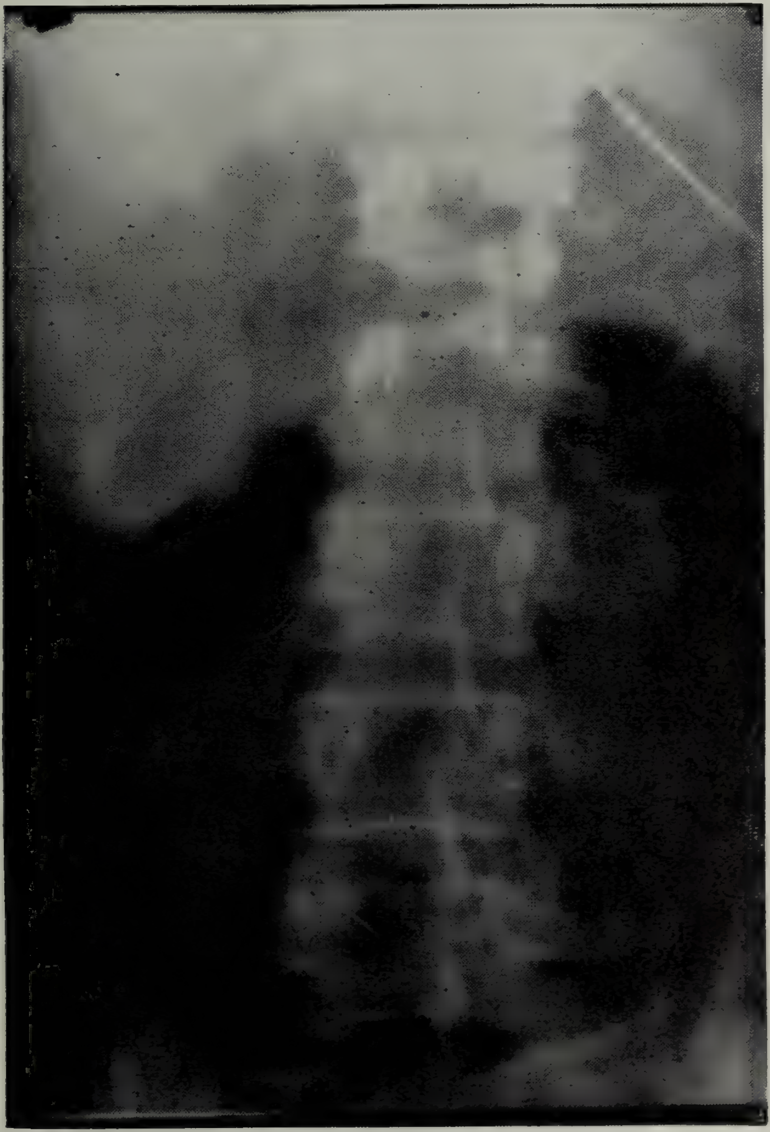


Fig. 3. The last picture in the serial aortograms; dye has left the renal arteries and aorta, but still shows a loop of dye around lower border of the right renal mass. Compare with figure 4.

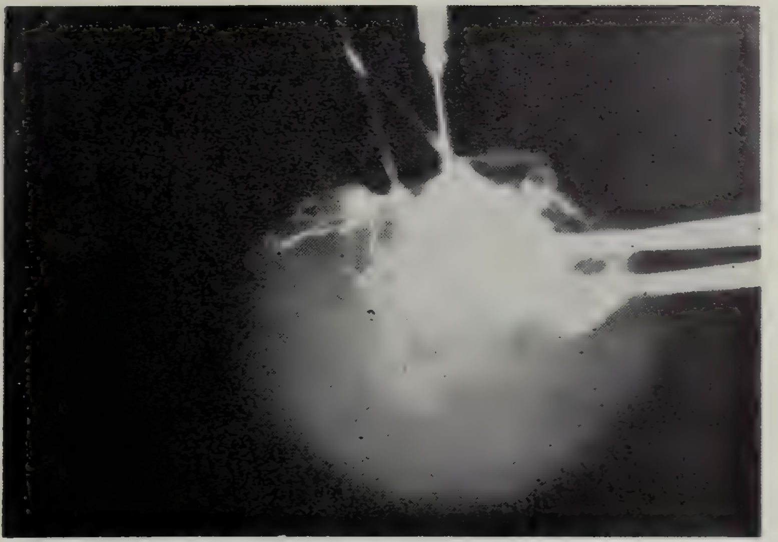


Fig. 4. Operative specimen injected through a cannula ties in the renal artery, catheters tied in the renal veins. Note loop of dye similar to that in figure 3.

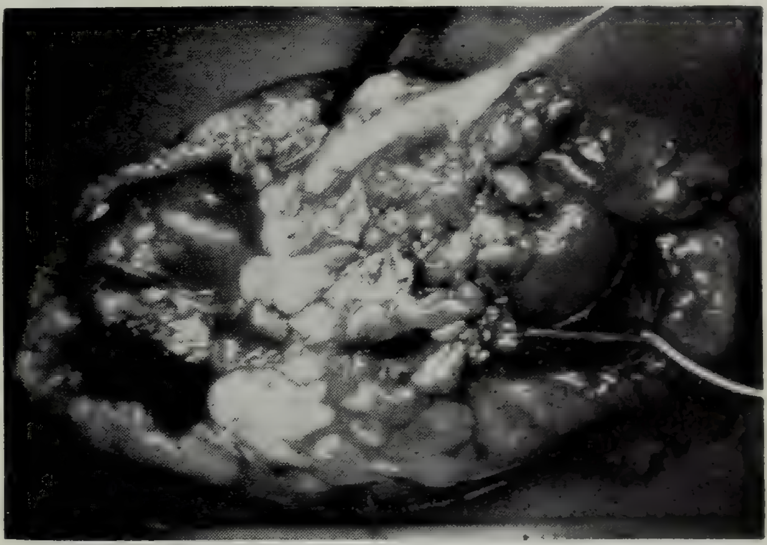


Fig. 5. Gross specimen showing relation of the right kidney to the mass.

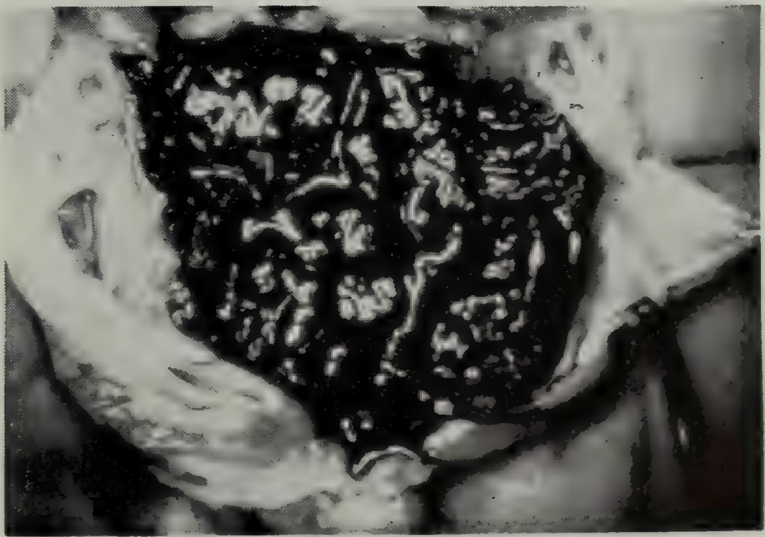


Fig. 6. Specimen opened showing the massive hemorrhage and clot.

ative findings, and neither he nor his wife could recall any past history of trauma. The blood pressure was normal on admission and remained so throughout his postoperative check-up. Careful pathologic study of the removed kidney revealed no evidence of arterial disease or aneurysm. We believe it justified, therefore, to class this as a spontaneous rupture of a renal artery.

539 N. Grand Ave.

BIBLIOGRAPHY

1. Abeshouse, B. S.: Urol. & Cutan. Rev. 55:451, 1951.
2. Malisoff, S., and Cerruti, M.: J. Urol. 76:542, 1956.
3. Melick, W. F.; Yarbrough, C. P., and Boler, T. D.: J. Urol. 66:458, 1951.

Special Article

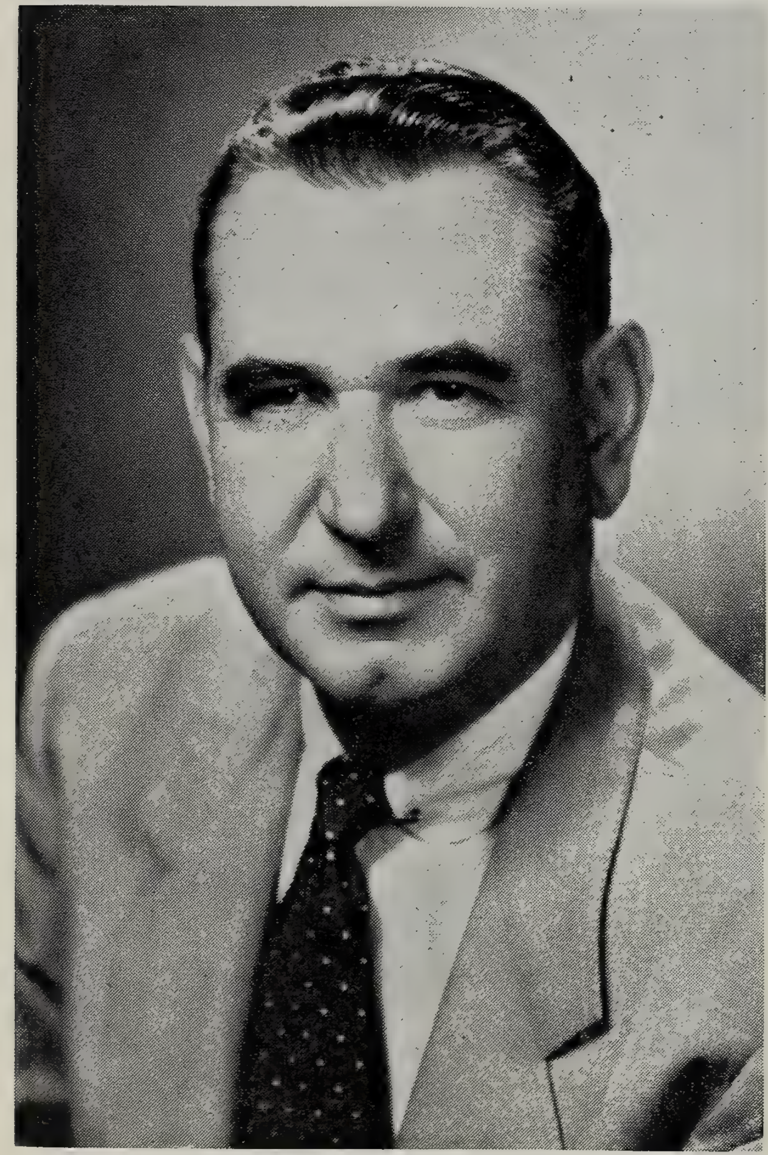
The Vendor Program in Missouri

PROCTOR N. CARTER, *Jefferson City*

Director, Missouri State Division of Welfare

I AM PLEASED to open this Second Annual Institute of County Welfare Directors. The program has been planned with care and I want to express my great appreciation. As you will see by the program, there are some stimulating subjects to be discussed during this three day session.

The fourfold theme of this meeting, problems of mental illness, welfare of the aged, use of resource services and education for the handicapped, is a good follow-up, I believe, on the general subject of our last conference which centered around health problems in public assistance.



Proctor N. Carter

Our meeting comes at a time when plans are being carried forward to enable Missouri to derive the most constructive benefits from the recent amendments to the Federal Social Security Act. Our meeting comes just prior to the convening of the State General Assembly, always a tremendously important event in our work.

All are familiar with the amendments to the Social Security Law passed by the 84th Congress. They were all of great importance and represented the first major overhaul in the public assistance phases of the Social Security Act in recent years. The effect on the size and cost of public welfare programs in Missouri through extension of Social Security coverage; lowering of the retirement age for women; provision for retirement of disabled workers at age 50, will be very great in years to come.

Already we have been able to increase Old Age Assistance and Aid to the Disabled grants $5.00 a month because of changes in the Federal law, and we have been able to increase grants for children about $2.00 per child. We anticipate the time when we will receive grants from the Federal Government for research and demonstration projects pointing toward the reduction and prevention of dependency. We hope that the next Congress will appropriate funds for Child Welfare in line with the recent congressional authorization raising the amount which could be appropriated from 10 million dollars to 12 million dollars annually.

The amendment to the Federal Act offering the brightest hope and promise for indigent persons in Missouri in the immediate future deals with the possibility of a state-wide program of medical care for those on assistance rolls. This possibility is thrilling in its significance and is commanding most of our efforts at the present time.

The inauguration of such a plan in Missouri depends, of course, on action by the Legislature through changes in the present welfare law and appropriations to finance the program. I have every confidence that the Legislature, which I have found to be understanding and considerate of the welfare of our aged, blind, disabled and dependent children, will take necessary steps to provide a medical care program.

The lack of a state-wide medical care plan has for many years been one of the most serious de-

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Presented at a meeting of County Welfare Directors, November 14, 15 and 16, 1956, Columbia, Mo.

ficiencies in the welfare program in our State. The things that happen to people because of this lack are probably known better to the persons in this room than to any other group in the state. The congressional intent in the passage of the amendment providing for Federal participation in expenditures for medical care was "to promote the health of the Nation by assisting states to extend and broaden their provisions for meeting the cost of medical care for persons eligible for public assistance by providing for separate matching of assistance expenditures for medical care."

The amendment applies only to the programs of Old Age Assistance, Aid to Dependent Children, Aid to the Blind, and Aid to the Permanently and Totally Disabled. There are no Federal matching funds available for persons on general relief, nor for that group of persons who do not receive public assistance but who are indigent as far as being able to meet medical care costs is concerned.

The Federal law provides for the matching of payments made directly to the doctor or hospital "in the form of medical or any other type of remedial care (including expenditures for insurance premiums for such care or the cost thereof)."

A new matching formula has been added to the Federal law which is over and above the present regular matching formula. It provides that a state may receive up to one half of the product of $6 multiplied by the total number of adult recipients (OAA, AB, PTD and ADC Caretakers) and up to one half of the product of $3 multiplied by the total number of dependent children who received assistance during any month. This is purely a formula which determines the maximum amount of Federal funds which any state can receive under this plan, and these figures have no relation to the cost of medical care in any individual case.

The effective date of the new Federal law is July 1, 1957, which means that a great deal of planning must be done before that date if Missouri is to take immediate advantage of Federal money which will become available.

The Social Security Administration has had a definition of medical care in effect for many years and one which is broad in scope. The essence of it is as follows: "Medical, surgical, dental and nursing services in the home, office, hospital, clinic or other suitable place provided or prescribed by persons authorized by state law to give such services; such services to include drugs and medical supplies, appliances, laboratory, diagnostic and therapeutic services, nursing home and convalescent care and such other medical services and supplies as may be prescribed by such persons." This definition makes it possible for a state to have as comprehensive program as can be financed and as is desired.

If we apply the Missouri caseload estimates for the next biennium to the matching formula described, there could be a total of $28,000,000 available for a medical care program for a two year period, 14 million dollars being from state funds and 14 million dollars from Federal funds. More than 18 million dollars of this amount would be allocated to the Old Age Assistance program, about 7 million dollars to ADC, and about 2 million dollars to PTD. These figures are maximums, depending entirely upon appropriations by the State Legislature and upon the actual monthly expenditures for medical care purposes.

You might be interested in some of the things we have done and are planning for the future in trying to work out the best possible medical care program for the State of Missouri. On September 11 and 12 several of us attended a meeting in Washington called by the Honorable Marion B. Folsom, Secretary of the Federal Department of Health, Education and Welfare, to discuss with all state welfare directors the new amendments to the Federal law. This meeting gave us an opportunity for an interchange of ideas with various state welfare directors, many of whom have been administering medical programs for assistance recipients for many years.

On September 24, we met with the Executive Secretary of the Missouri State Medical Association in St. Louis and discussed many mutual problems which will occur in the administration of a medical care program.

On October 16-18 a group from the state office attended a meeting of several states in the Regional Federal office in Kansas City. In addition to representatives from the Regional and Washington offices of the Bureau of Public Assistance, persons were present from the welfare departments of Iowa, Nebraska, South Dakota and Missouri. In all four of these states there is now no state-wide medical care plan and, therefore, all of us had somewhat similar questions and problems.

On October 21 we met with the Medical Economics Committee of the Missouri State Medical Association in St. Louis. Presented to that group was information we had gathered to date. The group did not take any official action, but displayed much interest and will ultimately make formal recommendations to the State Medical Association.

On October 29 we called a meeting in Jefferson City which was attended by representatives of the State Medical Association, State Osteopathic Association, State Hospital Association, State Dental Association and the State Nurses Association. In attendance also were Dr. James R. Amos, Director of the State Division of Health, and Dr. L. M. Garner, President of the Missouri Health Council. The Secretary of the Pharmaceutical Association could not attend but later talked with us. To this group we presented all facts and information gathered to date, and discussed questions and possibilities for the program. We hope later to meet with the board or a committee from each of those associations, in order to keep them fully advised of our current thinking and planning, and to obtain from them their advice and suggestions as to further steps.

On November 27 and 28 the Medical Care Consultant of the American Public Welfare Association will work with us for several days in the state office. Miss Pearl Bierman is known to a number of you and comes highly recommended as a consultant in the field of medical care. She was on the staff of the Illinois Public Aid Commission at the time the medical care program was initiated in that state. Since joining the staff of APWA she has had many opportunities of observing similar programs in many places throughout the country.

Since the Federal law makes specific mention of insurance premiums, we have prepared detailed caseload data which has been sent to the executives of the Blue Cross and Blue Shield plans in St. Louis. This information consisted of caseloads, in each of the four programs, classified according to age, race, sex and living arrangement. It is now being studied by actuaries to determine whether there is any possibility of working out a medical program on an insurance basis.

We have accumulated quite a sizeable volume of written material describing medical care programs in other states. This includes publications by the American Medical Association, American Public Welfare Association, Social Security Administration and various states. This material has been interesting and helpful, particularly in the important area of comparison in costs.

Depending on the advice we receive from Miss Bierman, we may correspond with other states or visit one or two which might seem to warrant further study in helping formulate our own plans. In the near future, we hope to set up a state advisory committee on medical care, composed of representatives of various organizations concerned with the subject.

One other item is a study we are making of medical care costs now being included in public assistance budgets. We are sure a considerable amount is budgeted for this purpose, and we want to know, on a current basis, the amount of money being spent and the kinds of medical care being budgeted.

Assuming the State Legislature will pass legislation necessary for us to inaugurate a program of medical care, it becomes obvious that the size of the appropriation will determine the scope of the program we may undertake. If the Legislature were to appropriate sufficient state money to obtain the maximum Federal funds which will be available, it might be possible to establish a program which would include all of the following items on a limited basis:

1. Physicians home and office calls.
2. Drugs and medicines.
3. Hospitalization.
4. Surgery.
5. Nursing service in the home.
6. Dental care.
7. Glasses.
8. Appliances.
9. Hospital or medical care insurance premiums.

Looking at the situation realistically, I rather doubt that we will be able to start with a full scale program. Our planning will have to be sufficiently flexible to fit any amount which is appropriated. After the appropriations are made, our first major decision will probably be selection of types of medical care that can be offered within the limits of the money available.

To give an idea of the problems that will be involved in the inauguration of a medical care program, let's look at some of the major questions which will have to be resolved by the agency and the various medical groups upon which we will depend for advice and guidance.

1. In regard to physicians' services, is it possible to draw a line between chronic illness and acute illness and, if so, would it be practical or desirable to exclude care for chronic illness? Will the medical doctors and doctors of osteopathy agree to a state-wide fee schedule, such as some now being used by other government agencies; for example, vocational rehabilitation?

2. In regard to drugs and medicines, will it be possible to get a state-wide agreement from druggists so that prescriptions would be handled for us on some special basis, such as cost plus 10 per cent for handling?

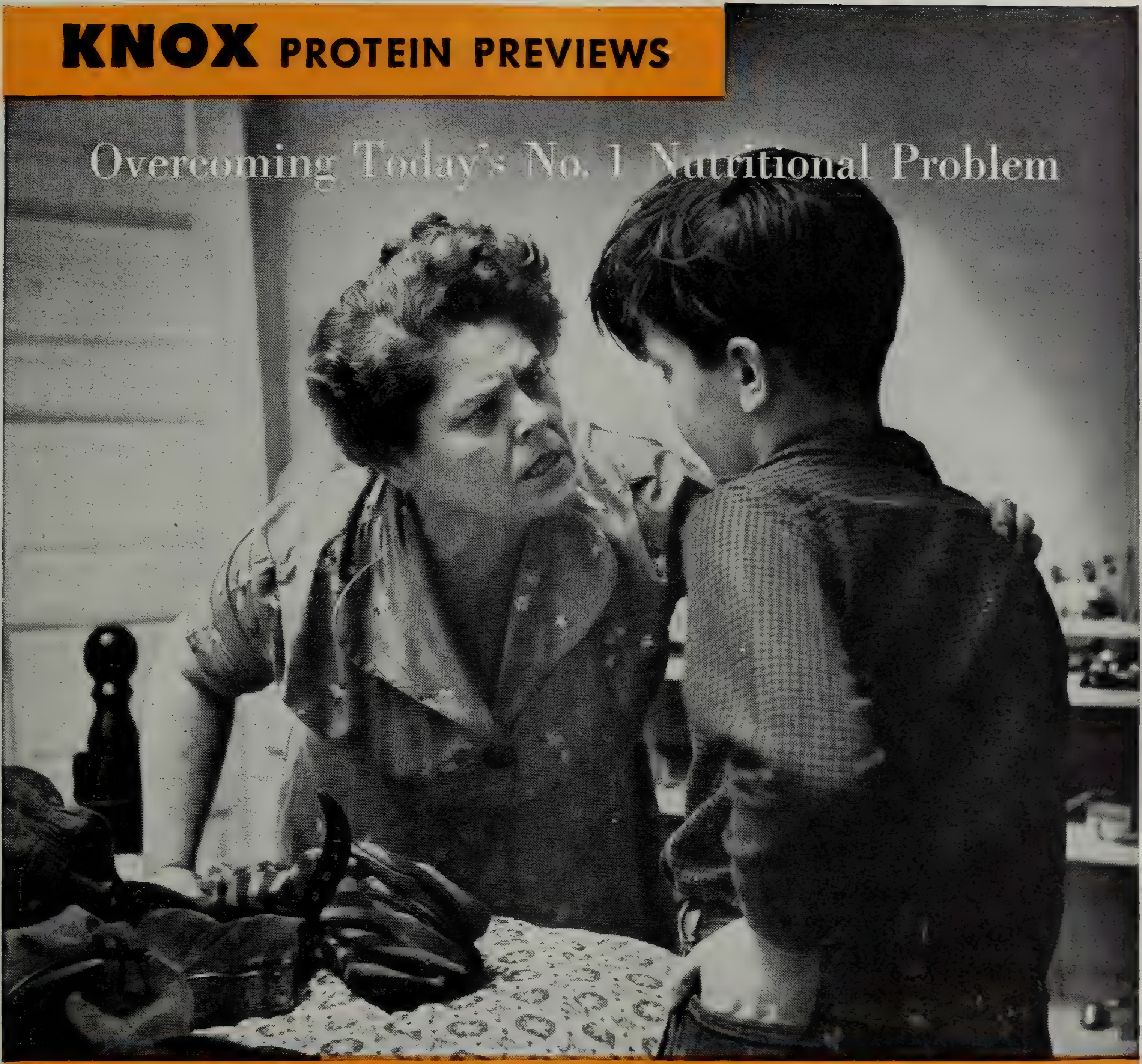
3. If the appropriation is sufficient to include money for hospitalization, could this be limited to screen out chronic cases? Would the free public hospitals continue giving free care to assistance recipients? Would the other hospitals accept some rate which would be less than actual cost? If the appropriation were sufficient to cover physicians' services, drugs and medicines, and dental care, but not sufficient to cover hospitalization, would the county and city governments be able to expand their present activities in paying for hospital costs?

4. Dental care would be particularly important in the ADC program. Would we be able to obtain an agreement on a state-wide fee schedule? If dental care is a part of the medical care program for each of the four categories, should payment for dentures be excluded? Should the program be limited to fillings and extractions?

5. In providing nursing care in the home, would it be possible to obtain a rate less than the regular rate? In the urban areas, how would service from the visiting nurses association be affected?

6. Should glasses and appliances be excluded

KNOX PROTEIN PREVIEWS



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[1] The Food Exchange Lists referred to are based on material in "Meal Planning with Exchange Lists" prepared by Committees of the American Diabetes Association, Inc., and The American Dietetic Association in cooperation with the Chronic Disease Program, Public Health Service, Department of Health, Education and Welfare.

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from the plan? If they are included, what principles would be used in governing their purchase?

7. Although the cost of nursing home care could be included in the state plan—since the Federal definition makes this possible—the cost in this state would be tremendous. Particularly in the Old Age Assistance program, the cost of nursing home care could soon absorb the entire monthly allocation for medical care costs in that program. We have about 8,500 Old Age Assistance recipients at the present time in this state who are in nursing home care, which includes the full range from custodial care to convalescent care. We do not know how many others should be in nursing homes, but undoubtedly the number is large. It appears that if nursing home care were included, we would not be able to have any other services in the OAA and PTD programs.

8. I have mentioned that we are exploring possibilities in respect to Blue Cross and Blue Shield. However, based on the efforts made in other states to work out such plans, we do not have much hope that this will be possible within our limitations.

9. Among the questions on mechanics of handling the program, these are some of the most pressing:

a. Should all medical care be placed on the vendor payment plan or should we try to work out a combination of cash payment (whenever it can be included in the grant up to the maximum) plus vendor payment? The vendor payment funds will be matched on a 50-50 basis, while the cash payments range from about 65 to 75 per cent Federal funds.

b. How much authorization should the county office give before any medical care is received under such a plan? In some states the recipient is given an identification card which shows the name of his doctor, and which he can present to that doctor whenever he needs a physician's services, and the county welfare office is then billed according to established procedures. At the other extreme, in some states the recipient must contact the case worker each time before any type of medical service is received. Both of these plans have some good and some bad features. The question is, how much individual control by the welfare office is necessary or desirable?

c. Most of the other states have a medical advisory committee in each county to advise and work with the County Welfare Office. Is that the best plan to be followed, or would it be possible to have a part time paid physician as a member of the staff of each county welfare office?

The questions I have listed are difficult but not impossible to answer. Many of them may be determined quickly once the amount of the appropriation is fixed. In the meantime, we will use every possible resource in order that the plan adopted will be the best we can possibly have within the amount of money available.

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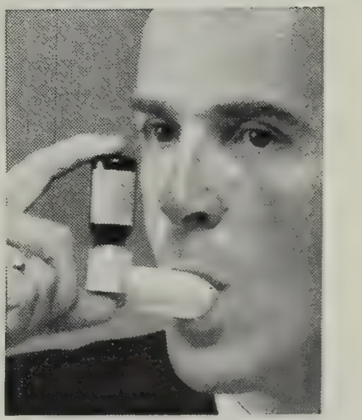

Note: First prescription must include medication and Medihaler Oral Adapter (supplied with plastic case for medication and Adapter).

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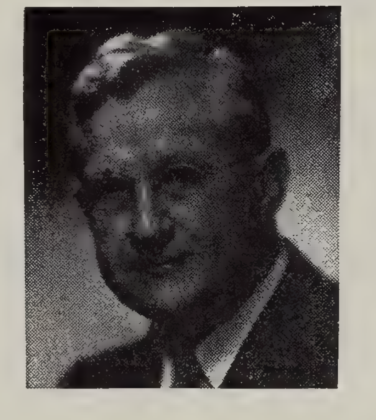
Riker LOS ANGELES

President's Page



The American Medical Education Foundation made its annual distribution of grants to the country's eighty-three medical schools on February 11, 1957. Each four year school received $6,850.00 from the Foundation; each two year school received half that amount. In addition to this basic grant, each school received all funds earmarked for that particular school.

Missouri schools received the following amounts:

	Undesignated Grants	*Earmarked by Donors*	*Total Amount*
St. Louis University School of Medicine	$ 6,850.00	$ 6,091.14	$12,941.14
Washington University School of Medicine ..	6,850.00	6,098.52	12,948.52
University of Missouri School of Medicine ...	6,850.00	1,051.84	7,901.84

During the year 1956, the National Fund for Medical Education distributed the following amounts to Missouri schools:

St. Louis University School of Medicine	$15,000.00	$31,330.00	$46,330.00
Washington University School of Medicine ..	15,000.00	22,490.00	37,490.00
University of Missouri School of Medicine ...	11,250.00	11,050.00	22,300.00

Hereafter, all contributions received by A.M.E.F. will be distributed directly to the medical schools. Formerly, these sums were turned over to the National Fund for distribution.

While contributions from Missouri physicians increased during 1956, still only a small percentage of the total actually gave. It is the hope of our Missouri Committee that 1957 will bring a substantial increase in the number giving and in total contributions.

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This case report is from the files of the patient's physician; photo professionally posed.

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EDITORIALS

99th Annual Session

Arrangements for the 99th Annual Session of the Missouri State Medical Association are nearing completion, and indications are that this will be an outstanding meeting. Hotel reservations, the only index at this time, are heavy. All comments on the program are in keeping with the plans of the Committee, that it is valuable and practical.

Reservations in advance of the Session will need to be made for the Instruction Courses on Tuesday morning. Information will go to members soon concerning these and reservations for other special events of the meeting, including the Annual Banquet in honor of Past Presidents. A number of members will receive their 50-Year Pins at the banquet.

The General Committee on Arrangements for the Session is Dr. Ralph Perry, Kansas City, Chairman; Dr. C. G. Stauffacher, Sedalia, and Dr. Donald M. Dowell, Chillicothe.

The Executive Committee is composed of Dr. Richard H. Kiene, Chairman; Dr. Ralph Perry, Dr. Phillip L. Byers and Dr. James E. Keeler.

The Past Presidents' Banquet Committee is composed of Dr. Victor B. Buhler, Dr. C. Edgar Virden, Dr. James R. McVay, Sr., and Dr. G. Wilse Robinson, Sr.

The program for the session appears on page 268 and programs of special events and other meetings held concurrently or just prior to the session appear in this issue of MISSOURI MEDICINE.

Motor Vehicle Accidents

Prior to the close of the year, the death toll from motor vehicle accidents in the United States had risen to an unprecedented high, indicating that it would exceed 40,000, as compared with 38,426 deaths in 1955 and 35,586 in 1954. Even on the basis of miles traveled, the motor vehicle accident death rate for 1956 is above the corresponding rate for 1955, which recorded a slight increase from the preceding year. In the past there was a decrease in the death toll per 100 million vehicle miles but this has not been the case in the last two years.

Males are far more frequently the victims of such accidents than females. Among white persons insured under industrial policies in the Metropolitan Life Insurance Company, the motor vehicle accident death rate is fully three times as high for males as for females at ages 1 to 74, averaging 25.4 and 8.1 per 100,000 for the two sexes, respectively, in 1953 through 1955. Males record the higher mortality at every age period, the sex difference increasing sharply from childhood through the early 20's, when the death rate for males is more than seven times that for females; thereafter, however, the difference diminishes.

Age 21 marks the peak in mortality from motor vehicle accidents among white males, in this insurance experience. The death rate in the period 1953-1955 rose sharply from less than 10 per 100,000 among boys at ages 1 to 14 to 64.1 per 100,000 at age 21. Even though the mortality decreased beyond that point, it was still above 50 per 100,000 at age 23, or at the same level as for 18 and 19 year old boys. The relatively high motor vehicle accident death rate among males in the late teens and early 20's may reflect, in large measure, frequent disregard of safe driving practices. The sharp rise in the rate for older people, however, is due in considerable degree to their inability as pedestrians to cope with current traffic conditions.

Among females, the age distribution of mortality from motor vehicle accidents is quite different from that among males. One point of variance is that females experience a comparatively gradual rise in the death rate during the teen ages; secondly, a peak is reached at age 18, three years below that for males. The death rate among white female policyholders in 1953-1955 rose from about 5 per 100,000 at ages 1 to 14 to a little more than 13 per 100,000 at age 18. It then tended downward with advance in age until later life when at ages 65 to 74 the mortality rose to 16 per 100,000, higher than for any other age group.

Among insured males in the age range from 16 through 29, drivers and passengers constituted more than 90 per cent of the victims; at age 21, the proportion was 97 per cent. The age pattern of pedestrian fatalities resulting from motor vehicle accidents is the same for both sexes, unlike the situation for total motor vehicle accident fatalities.

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Musings of the Field Secretary

March 7 to 9 finds the 12th National Conference on Rural Health in the midst of Kentucky hospitality. The Conference will be held at the Brown Hotel, Louisville.

The Council on Rural Health of the A.M.A. has made this Annual Conference into the "number one" rural health project of the country. In accomplishing this, the Council has enjoyed the active cooperation of state medical societies, national farm organizations and agricultural leaders.

The general theme of this year's session is "Together We Build." Among the presentations on the meeting's menu are: "Description of Modern Day Medical Care"; "The Impact of Modern Living on Health"; "Rural Economics in Relation to Health and the Migrant Labor Problem." In addition, the entire Conference will wrestle with specific rural health problems in small discussion groups.

Five school health workshops are in the planning stages in Missouri for the month of June. These are to be held as follows at the five Missouri State Colleges: Warrensburg, June 10-12; Kirksville, June 12-14; Maryville, June 17-19; Springfield, June 20-21; and, Cape Girardeau, June 24-26.

The tentative theme for these sessions embraces "School Environment and Health."

Teachers, nurses, parents, school administrators, doctors, school board members and others with an interest in child health will take part in these workshops.

Group discussions on selected phases or problems associated with the school environment as it affects the health of the school child will form the basis for the workshop operanda.

Missouri Medical Meetings

Missouri State Medical Association Annual Session, Kansas City, March 31, April 1, 2, 3, 1957.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Society—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—third Tuesday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—fourth Tuesday of each month except June, July and August, at auditorium of General Hospital No. 1.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets only on call.

Johnson County Medical Society—meets only on call.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark-Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Webster County Medical Society—meets only on call.

West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

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Supply: Bottles of 8 ounces and 1 pint.

	1 teaspoonful (5 cc.) supplies:
Elemental Iron (as ferric ammonium citrate and colloidal iron)	38 mg.
Vitamin B_{12} activity concentrate	4 mcg.
Thiamine mononitrate	1.0 mg.
Riboflavin	1.0 mg.
Niacinamide	5 mg.
Pantothenic acid (Panthenol)	1.5 mg.
Pyridoxine hydrochloride	0.5 mg.

Alcohol content: 12 per cent

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News

"Health in Missouri" was the title of a talk presented by **James R. Amos**, M.D., Jefferson City, before a meeting of the American Association of University Women in Jefferson City on January 17.

The U. S. Junior Chamber of Commerce 19th annual awards dinner, at which **Hugh E. Stephenson**, M.D., Columbia, was named one of ten "Outstanding Young Men of 1956," was held in Dallas on January 19. A dinner and reception for Dr. Stephenson were held in Columbia on January 24 and the mayor of Columbia declared the day "Especially for Hugh."

An open house was held by Dr. and Mrs. **Charles L. Parkhurst**, Houstonia, on January 1 in celebration of their Golden Wedding anniversary. The *Sedalia Democrat* on December 30 carried a picture and article.

The Horace Mann PTA, St. Joseph, was addressed by **H. Ewing Wachter**, M.D., St. Joseph, on "Mental Health of Your Children" at a meeting on January 14.

At a meeting of Medical Record Librarians at the Kansas City General Hospital on January 16, **Quentin Cramer**, M.D., Kansas City, spoke on "Arthritis and Rheumatism."

The Woman's Auxiliary of the Jackson County Medical Society had **Victor B. Buhler**, M.D., Kansas City, as speaker at a meeting on February 1. His subject was "What Lies Ahead?"

The Greater St. Louis Society of Radiologists at a meeting on January 23 elected **Edwin C. Ernst, Jr.**, M.D., president; **Sam J. Merenda**, M.D., vice president, and **Thomas F. Maher, M.D.**, secretary-treasurer.

At a recent meeting **Richard Paddock**, M.D., St. Louis, was elected president of St. Luke's Hospital Medical Staff Association; **Emmett B. Drescher**, M.D., vice president, and **Herbert C. Wiegand**, M.D., secretary-treasurer.

Mr. Chester G. Starr, Jefferson City, has been named state chairman of the Missouri Heart Fund Campaign by **Walter Baumgarten**, M.D., St. Louis, president of the Missouri Heart Association.

The staff of the Nevada City Hospital recently elected **William H. Allen**, M.D., Nevada, as president of the staff.

The Greene County Guidance Clinic elected **G. Bruce Lemmon, Jr.**, M.D., Springfield, president of the board of directors at its January meeting.

Recently elected officers of the medical staff of St. Francis Hospital, Washington, are **L. O. Muench**, M.D., Washington, president; **B. P. Eisenmann**, M.D., New Haven, vice president, and **W. R. Richardson**, M.D., Union, secretary and treasurer.

The Hannibal Dental Society had **J. H. Walterschied**, M.D., Hannibal, as guest speaker at a meeting in January.

Recently elected officers of the medical staff of St. Vincent's Hospital, St. Louis, are **Robert D. Brookes**, M.D., president; **George H. Lawrence**, M.D., vice president, and **Omer E. Hagebusch**, M.D., secretary.

Brookfield employees of the Missouri Power and Light Co., at a weekly safety meeting, heard **R. W. Bohnsack**, M.D., Brookfield, discuss treatment for shock, electrical burns and first aid technics.

"Civil Defense" was the subject of a talk given by **F. B. Matteson**, M.D., Grant City, before the Sheridan 20th Century Club early in January.

New medical staff officers of Sisters' Hospital, St. Joseph, are **H. E. Wachter**, M.D., president; **H. C. Willumsen**, M.D., president-elect, and **R. W. Weed**, M.D., secretary-treasurer.

St. Louis City Hospital Alumni Association has elected **Joseph C. Peden, Jr.**, M.D., president; **William D. Hawker**, M.D., vice president; **Lee Hall**, M.D., treasurer, and **Drennan Dailey**, M.D., secretary. The annual dinner of the organization will be held April 24 at Le Chateau Restaurant, St. Louis County.

A Tuberculin Test Guide has been completed by the Bureau of Tuberculosis Control of the Missouri Division of Health with the assistance of the Committee on Tuberculosis of the Association. The Guide is available to physicians through the Missouri Division of Health or the Missouri Tuberculosis Association.

"Federal Income Tax Liability of Physicians," a 38 page booklet covering business entertainment expenses, deductions for expenses in taking postgraduate courses and deductions for maintaining an office at home, is available through the Law Department of the American Medical Association.

NEW MEMBERS

Anast, C. S., M.D., 308 Thilly Avenue, Columbia. Boone County Medical Society.

Ballew, John W., M.D., 630 South Kingshighway Boulevard, St. Louis. St. Louis Medical Society.

Bumgarner, James E., M.D., 7 Orchard Court, Columbia. Boone County Medical Society.

Clary, William F., M.D., 1636 South Glenstone, Springfield. Greene County Medical Society.

Cline, Merle A., M.D., 1002 Argyle Building, Kansas City. Jackson County Medical Society.

Cox, Mary E., M.D., 4500 West Pine Boulevard, St. Louis. St. Louis Medical Society.

Douglass, Daniel D., M.D., 410 Professional Building, Kansas City. Jackson County Medical Society.

Gibbons, Edward H., M.D., 3608 South Grand Boulevard, St. Louis. St. Louis Medical Society.

Gladney, John H., M.D., 4903 Easton Avenue, St. Louis. St. Louis Medical Society.

Harstein, Jack, M.D., 1515 Lafayette Avenue, St. Louis. St. Louis Medical Society.

Johnson, George L., M.D., Southeast Medical Building, Springfield. Greene County Medical Society.

Keats, Theodore E., M.D., 206 Thilly Avenue, Columbia. Boone County Medical Society.

Lodwick, Gwilym S., M.D., 1607 University Avenue, Columbia. Boone County Medical Society.

Logue, John, M.D., 516 Crestland Street, Columbia., Boone County Medical Society.

O'Connell, Gerald L., M.D., 1002 Argyle Building, Kansas City. Jackson County Medical Society.

Piper, August T., M.D., 4503a Easton Avenue, St. Louis. St. Louis Medical Society.

Popp, Carl G., M.D., 819 Vernon Street, Sikeston. Semo County Medical Society.

Prater, Bill G., 223 Professional Building, Springfield. Greene County Medical Society.

Richards, Frank O., M.D., 4901 Easton Avenue, St. Louis. St. Louis Medical Society.

Schewe, Elmer J., Jr., M.D., Route 6, Columbia. Boone County Medical Society.

Seidel, Donald R., M.D., 1325 South Grand Boulevard, St. Louis. St. Louis Medical Society.

Shector, Nathan, M.D., 701 East 63rd Street, Kansas City. Jackson County Medical Society.

Smith, Grafton A., M.D., 3001 West Boulevard South, Columbia. Boone County Medical Society.

Steinbeck, Herbert F., M.D., 7200 Manchester Avenue, St. Louis. St Louis Medical Society.

Stergen, N. E., M.D., 1325 South Grand Boulevard, St. Louis. St. Louis Medical Society.

Tarr, John R., M.D., Box 417, Houston. South Central Counties Medical Society.

Tribble, Robert E., M.D., 504 South Third Street, Chaffee. Semo County Medical Society.

Wacher, Leo L., M.D., 9 Concord Drive, St. Louis. St. Louis Medical Society.

Ziegler, Dewey K., M.D., 425 East Street, Kansas City. Jackson County Medical Society.

MEDICAL SOCIETY HONORS SIXTEEN JUBILEE DOCTORS

Sixteen physicians were honored on December 18 at special services at the St. Louis Medical Society. Nine jubilarians were present for the ceremonies, attended by more than 100 relatives, friends and associates. Each received a golden anniversary certificate. Those who were feted were Drs. Adolph H. Conrad, Martin J. Glaser, William P. Glennon, Arthur Gundlach, Charles F. Henke, Charles E. Hyndman, Martin F. Kouri, Roy E. Mason, Augustus W. Peters, Jerome E. Cook, E. Lee Dorsett, John F. Gallagher, John J. Kehoe, Charles L. Klenk, Sherwood Moore, Grace S. Mountjoy, Charles H. Neilson and Marsh Pitsman.

Front row, Drs. Arthur Gundlach, William P. Glennon. Charles E. Hyndman, Roy E. Mason, Adolph H. Conrad. Second row, Drs. Martin J. Glaser, Augustus W. Peters, Martin F. Kouri, Charles F. Henke.

Councilor District News

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

Discussion of interesting and unusual cases by six society members was the scientific program when the first monthly dinner meeting of the new year was held January 10 by the Chariton-Macon-Monroe-Randolph County Medical Society at Woodland Hospital, Moberly.

The newly installed President, Dr. Daniel D. Stuart, presided.

Physicians presenting the cases were: Dr. C. C. Cohrs, Dr. A. P. Rowlette, Dr. S. R. Szymanski, Dr. F. L. Harms, Dr. J. Will Fleming, and Dr. T. S. Fleming.

Members present were: Dr. W. D. Chute, Dr. Cohrs, Dr. J. Will Fleming, Dr. T. S. Fleming, Dr. Robert Hasson, Dr. Rowlette, Dr. L. D. McMurtry, Dr. C. C. Smith and Dr. Szymanski, all of Moberly; Dr. F. A. Barnett, Paris; Dr. James E. Campbell and Dr. Howard S. Miller, Macon; Dr. P. V. Dreyer, Huntsville; Dr. Harms and Dr. G. W. Hawkins, Salisbury; and Dr. G. C. Rice and Dr. Stuart, Brunswick.

Robert H. Young, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

The Jefferson County Medical Society, jointly with the staff of Jefferson Memorial Hospital, held a called meeting January 18 in the County Health Unit Building.

The meeting was called to order at 8:30 p.m. by the President, Dr. E. J. Senn. An interesting scientific talk was made on "Office Gynecology" by Dr. Waldo B. Edwards, senior instructor in obstetrics and gynecology, at St. Louis University Medical School.

Officers for the coming year were elected as follows: President, Dr. Karl V. McKinstry; Vice President, Dr. Thomas A. Donnell; Secretary-Treasurer, Dr. John F. Rutledge; Delegate, Dr. Charles E. Fallet; Alternate, Dr. R. H. Donnell.

The following doctors were present: K. V. McKinstry, M.D., Harold Donnell, M.D., T. A. Donnell, M.D., George Hopson, M.D. and C. E. Fallet, M.D., DeSoto; J. L. Mayfield, M.D., F. L. Kozal, M.D., C. E. Rice, M.D. and John F. Rutledge, M.D., Crystal City; B. Bolgar, M.D., Festus; E. J. Senn, M.D., Herculaneum; W. B. Edwards, M.D. and Charles R. Burnside, M.D., Kirkwood.

There was considerable discussion concerning the current mass inoculation campaign (polio vaccination) being carried on in the schools by the County Health Unit. It was noted that a multiple dose syringe was being used, and several doctors raised the question as to whether or not there was some danger in case of negative pressure in the syringe or of reflex muscle contraction of transmitting the virus of hepatitis. No conclusion was reached, and the matter was left in a abeyance. Others wondered out loud just how far the principle of free vaccination was going to be carried.

John F. Rutledge, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

Harry B. Stauffer, M.D., Jefferson City, spoke at a joint dinner meeting of the Audrain, Callaway and Montgomery County Medical Societies, Monday night, January 21, at the Park Motel, Mexico. He discussed "The Management of Eye Problems as seen in the Office of the General Practitioner."

The evening festivities began with a social hour, followed by dinner and the program.

Dr. Stauffer's talk, illustrated with excellent slides, was interesting and a good number of doctors from the three counties was present to enjoy this meeting.

Lawrence Epple, M.D., *Secretary*

Callaway County Medical Society

The annual meeting of the Callaway County Medical Society which was postponed from December 20, 1956, to January 3, 1957, was held at the Clinic Building, State Hospital No. 1, at 7:30 p.m.

The meeting was called to order by the President, Dr. J. Frank Nichols.

As the applications of Drs. G. C. Hobbs, C. H. Dixon and H. G. Freund had been approved by the membership committee, they were elected to membership in this Society.

A bill from McIntire Flower Shop was paid for flowers sent at the death of Dr. W. H. Williamson who was a Charter Member of this Society, which was organized in 1898. He was 89 years old and died November 16, 1956.

Dr. W. J. Cremer spoke of the activities of the National Mental Health Committee of which he is a member. A motion by Dr. C. H. Dixon that this Society sustain Dr. Cremer in his effort to deal with the situation now pending in the Committee.

On motion, the regular monthly meetings will be held at the Fulton Country Club with a dinner.

Dr. Tom Brewer, Treasurer, made a report of the finances of the Society.

The following doctors were elected by ballot as officers for 1957: President, Tom Brewer, M.D.; Vice President, J. J. Brown, M.D.; Secretary, James Hill, M.D.; Treasurer, Tom Johnson, M.D.; Delegate, W. J. Cremer, M.D. and Alternate, George F. Wood, M.D.

A motion was made, seconded and passed that the Society express its appreciation of the good service of Dr. Frank Nichols, President for 1956, and also the good service of Dr. R. N. Crews as Secretary for the past twenty years.

Those present were: Drs. J. Frank Nichols, George F. Wood, W. J. Cremer, C. H. Dixon, H. G. Freund,

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and
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*for anxiety
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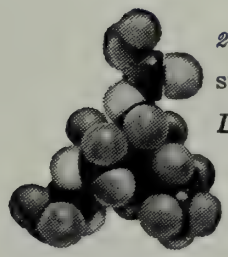

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James Hill, Tom Brewer, Thomas D. McCarthy and R. N. Crews.

On motion, the Society adjourned.

R. N. CREWS, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

Thirty people including doctors and their wives attended a dinner meeting of the West Central Missouri Medical Society at Harrisonville, Thursday night, January 10.

After an enjoyable social hour, a fine steak dinner was served, all of which set the proper stage for an excellent talk by John R. Rufe, M.D., Kansas City, Missouri, on "The Management of Some Common Eye Problems in the Office of the General Practitioner."

Dinner preceded the scientific program.

The speaker was thanked following the meeting.

At the business part of the meeting, Dr. Rolla Wray, President of the Society, appointed a program committee and requested that the committee plan the regular meeting programs six months to a year in advance. This will make it possible to publicize special programs far ahead as well as to give invited speakers more time to prepare for their talks.

ROBERT MAGEE, M.D., *Secretary*

EIGHTH COUNCILOR DISTRICT

B. E. DETAR, JOPLIN, COUNCILOR

Ozarks Medical Society

The Ozarks Medical Society and its Woman's Auxiliary held a dinner meeting at Monett on Tuesday night, January 8.

Following a social hour, a smorgasbord dinner was served. Second trips to replenish empty plates were practically unanimous.

The meeting was well attended.

The scientific program was presented under the auspices of Missouri University Medical School and the Missouri Academy of General Practice. The speakers were Dr. John Killough and Dr. Walter Hepner of the faculty of the University of Missouri Medical School. Dr. Killough spoke on "Diagnosis and Management of Pulmonary Emphysema," and Dr. Hepner discussed "The Newborn Infant and His Problem."

Informal discussion followed the evening presentation.

While the doctors were enjoying the scheduled

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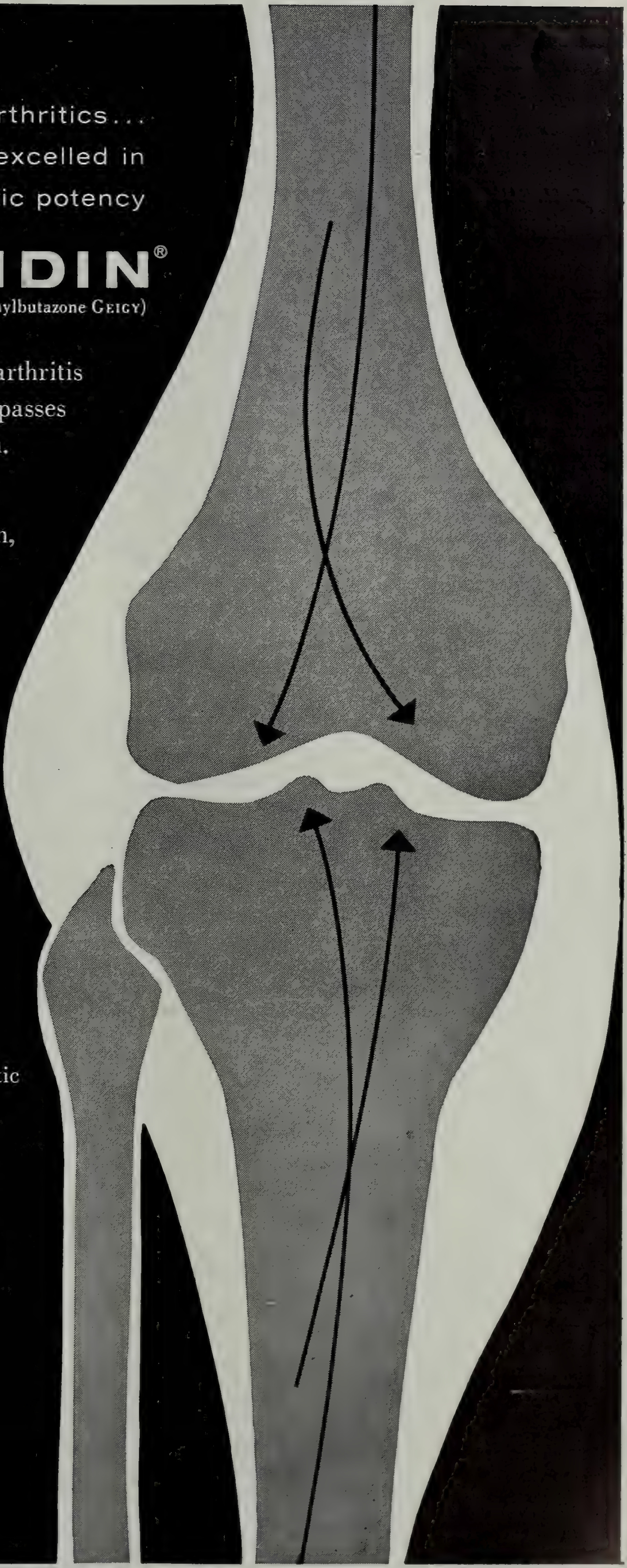


scientific program, the ladies held a separate meeting. Their speaker was Sergeant Wade of the Missouri Highway Patrol.

Arthur Graves, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner at the City View Cafe in Mountain Grove, Wednesday night, January 23, with the following members and visitors present: Dr. and Mrs. R. W. Denney, Dr. and Mrs. S. W. Connor, Miss Tillie Connor, Dr. A. C. Ames and Dr. R. A. Ryan, Mountain Grove; Dr. and Mrs. M. B. Perkins, Dr. H. W. Miller and Dr. L. E. Walker, Willow Springs; Dr. D. E. Tiffany, Mountain View; Dr. and Mrs. M. L. Fowler and Dr. and Mrs. J. N. Wiles, West Plains; Dr. and Mrs. A. T. Walker, Mammoth Springs, Arkansas; Dr. William Wood and Dr. Guy Calloway, Jr., Springfield.

After dinner the ladies went home with Mrs. Denney for the evening, and Dr. Wiles, the President, called the meeting to order and turned it over to the speakers from Springfield. Dr. Wood told of some experiences with some of the newer antibiotics in abdominal operations and Dr. Calloway showed a lot of x-ray films of obscure pulmonary conditions which were instructive and much appreciated.

The minutes of the last meeting were then read and approved.

The election of officers for 1957 were as follows: Dr. A. T. Walker, President; Dr. M. L. Fowler, President-elect; Dr. A. C. Ames was reelected as Secretary and Treasurer for another year; Dr. J. N. Wiles, Censor for three years and the Censors holding over are Dr. M. L. Fowler for two years and Dr. Garrett Hogg, Jr., for one year. The Delegates and Alternates are: For Wright County, S. W. Connor, M.D., and R. W. Denney, M.D.; For Texas County, J. L. Spears, M.D., and J. R. Tarr, M.D.; For Howell County, Rollin H. Smith, M.D., and C. F. Callihan, M.D.; For Oregon County, C. W. Cooper, M.D., and A. T. Walker, M.D.; For Douglas County, M. C. Gentry, M.D., no alternate and for Ozark County Deborah Doan, M.D., no alternate.

The next meeting will be in Cabool, February 27, with Dr. Hogg as sponsor.

A. C. Ames, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Mineral Area County Medical Society

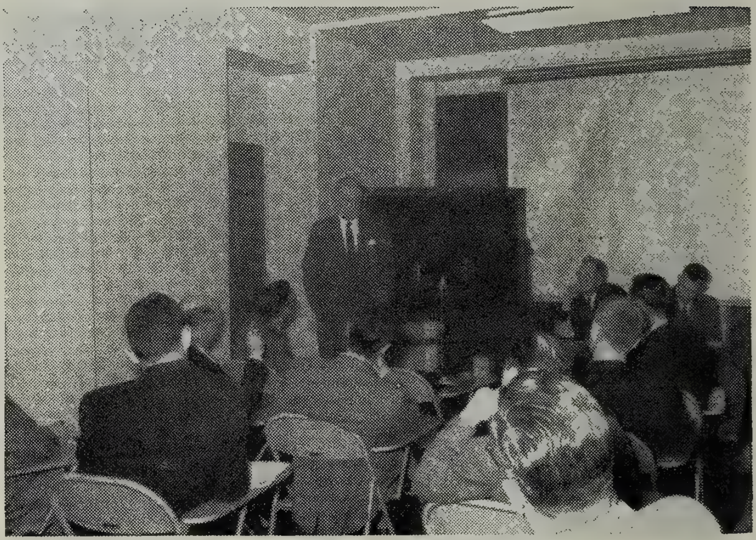
A meeting of the Mineral Area County Medical Society was held at the Clinic Building, State Hospital No. 4, Farmington, Thursday night, January 24. Joseph L. Lucido, M.D., St. Louis, spoke on "Diseases of Esophagus."

Marvin Haw, M.D., *Secretary*

Southeast Missouri Chapter of MAGP

Doctors of Cape Girardeau, Perry and Semo County Medical Societies were invited to attend a postgraduate scientific program at the St. Francis Hospital, Cape Girardeau, Tuesday night, January 15.

The audience was attentive.



Dr. Arneson was one of the speakers.

This session was sponsored by the Southeast Missouri Chapter of the MAGP.

Thirty-five doctors were present to hear two excellent papers, one by Dr. A. N. Arneson, St. Louis, and the other by Dr. Frank Long, St. Louis. Dr. Arneson spoke on "Cancer of the Uterus," and Dr. Long discussed "Office Gynecology."

Members of the MAGP attending this meeting received two hours Category I Postgraduate Credit toward Academy requirements.

J. H. Trolinger, M.D., *Secretary*

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The Council

The Council met at the Coronado Hotel, St. Louis, on January 26, 27, 1957, with W. F. Francka, M.D., Hannibal, chairman, presiding. Those present were Drs. Francka; Donald M. Dowell, Chillicothe; R. O. Muether, St. Louis; Joseph C. Creech, Troy; Byron M. Stuart, Boonville; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; B. E. DeTar, Joplin; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Carl F. Vohs, St. Louis; E. Royse Bohrer, Jefferson City; Jerome I. Simon, St. Louis; W. S. Sewell, Springfield; Joseph L. Fisher, St. Joseph; James R. Amos, Jefferson City; Messrs. John W. Noble, Kennett; John Buckner and David Galbraith, Springfield; Hollister Smith, Edward Schneider; Lemoine Skinner, Jordon Singleton, Raymond McIntyre, Tom R. O'Brien, St, Louis. Drs. T. E. Sanders, St. Louis, and Thomas Thale, St. Louis, presented reports. Dr. Willard Bartlett, St. Louis, presented legislation to the council.

Woman's Auxiliary

A request was received for $400 from the Woman's Auxiliary for use in their convention and on motion of Dr. Sewell, this was approved.

A letter from Mrs. Armand Fries, St. Louis, President-elect of the Woman's Auxiliary, asking that an Advisory Committee composed of Drs. W. S. Sewell, Springfield, W. F. Francka, Hannibal, and Robert Mueller, St. Louis, be approved, was presented and on motion of Dr. Dowell, this committee was voted approval.

Field Secretary's Report

Mr. McIntyre reported on meetings at the University of Missouri Medical School which are presented on Thursday afternoons twice a month; also that the University would be glad to furnish speakers for county society meetings. He said that Dr. Stuart planned a Fifth Councilor District meeting on February 28 at Columbia in connection with one of the Thursday presentations.

He discussed the preceptorships at the University of Missouri Medical School saying that there are now two preceptees, one with Dr. A. E. Spelman, Smithville, and one with Dr. R. R. Grayson, Perryville. He said there would be about 35 seniors next year and probably more perceptees than there had been this year. He said that in Kansas this plan was under the General Practitioner Academy sponsorship. He said that he was to speak to the Student Chapter A.M.A. at Columbia on March 5 on "Opportunities for Practice in Rural Missouri."

A meeting in Chicago, February 9 to 12, the 53rd Congress on Medical Education and Hospitals, was announced, as well as the Conference on Rural Health in Louisville on March 7 to 9.

Attention was called to a column in the *Missouri Ruralist* furnished by the A.M.A. Council on Rural Health in cooperation with MSMA Rural Health Committee, also to the new format of the *Pettis County Medical Society Bulletin.* Dr. Stauffacher was congratulated on this Bulletin. He distributed copies of an article from *U. S. News & World Report* of January 25, on "Unfair to Doctors? In Britain, No Raise for Them in 5 Years."

Preceptorships

The method of obtaining preceptors was discussed, it being kept in mind that the University made the final decisions. After discussion it was voted on motion of Dr. Dowell that a letter go to members, not including Districts 3 and 7, explaining the plan and asking members to signify their desire to serve as possible preceptors, the replies to go to the state office which would clear with the Council and the Committee on Rural Health, and Education Committee of the General Practitioners, after which the Committee on Medical Education and Hospitals of the Association would present them to the University.

Pictorial Story

Mr. Skinner suggested that the preceptorship offered material for a pictorial story in one of the newspapers, and this was approved.

Medicare Committee

Mr. O'Brien reviewed the negotiating of the Medicare contract and said that the contract required a committee to assist the fiscal agents principally in decisions on procedures not covered in the schedule. It was suggested that there be four from St. Louis including the chairman; four from Kansas City, including the cochairman; and three from outstate. It was suggested that Dr. Simon be chairman, the outstate men Drs. Bohrer, Stauffacher and Crowe of Cape Girardeau. On motion of Dr. Dowell the appointment of the committee was approved.

Dr. Amos

Dr. Amos spoke briefly on the poliomyelitis serum situation, saying that there was a supply on hand. The closing of the Nichols Sanitarium at Savannah, Missouri, was announced.

Cancer Committee

Dr. Fisher presented the report of the Committee on Cancer which had met on January 20. He stressed

Cancer Committee in Session

. . . comes the Season!

THE public's fancy will soon turn to thoughts of cleaning up, painting up, and fixing up around the house.

Though nobly conceived, these home beautifying activities may have less noble results—if the ladder shifts, the hammer slips, or Junior sips of the forbidden fruit tree spray. Accidents can happen!

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especially the desire of the Committee to have space in Missouri Medicine regularly to present information on Cancer; the adoption of the project to send "Cancer News," to all members of the Association; a service for the study of cervical smears, which will be studied with the Committee on Laboratory Medicine before definite recommendation is made.

A Cancer Commission, as recommended by resolution of the A.M.A. and in the hands of the Board of Trustees for implementation, was recommended by the Committee. The attorney was asked to study the legal aspects; also the powers of the present State Cancer Commission.

Blue Shield

As requested at the last meeting of the Council, a breakdown of the Voting Board and the Board of Trustees of Missouri Medical Service was presented together with a map showing location of the districts. It was shown, both by district and by total, that the M.D. representation on both the Voting Board and the Board of Trustees was in a ratio of two to one to lay members. It was stated that the Voting Board meets once a year, the Board of Trustees on call and the Executive Committee about once a month.

Treasurer's Report

The Treasurer reported on the finances of the Association, showing operations to be within the budget.

A.M.A. Dues

A letter from the St. Louis Medical Society requesting that they be paid the 1 per cent paid by the A.M.A. for collection of A.M.A. dues was read. After discussion, on motion of Dr. Bull, it was voted that the money remain with the Association until a study now underway at the A.M.A. is completed. On motion of Dr. Muether, it was voted to urge the A.M.A. to pay for such collections on a cost basis.

Conservation of Eyesight

Dr. Sanders presented a report of the Committee on Conservation of Eyesight. He discussed S.B. 26, the optometry bill, and gave the Committee recommendation that the bill not be opposed. He reviewed a bill which the opticians propose to introduce and said the Committee recommended its approval. He reviewed the situation on eye examinations in connection with drivers' license examination and asked the advice of the Council on the Committee offering to be of service to the Highway Department in this regard. On motion of Dr. Vohs, it was voted to approve the Committee making this offer. On motion of Dr. Vohs, it was voted to approve of the Committee's recommendations on the dispensing optician's bill and that, if S.B. 26 is satisfactorily amended, no action be taken on it.

Committee on Medical Economics

The report of the Committee on Medical Economics was presented, together with S.B. 40 and S.B. 58, enabling legislation for a vendor program in Missouri. Various aspects of P.L. 880 were discussed, together with the majority and minority reports of the Committee, which were: Majority Report: "Traditionally the medical profession has provided care for indigent patients without charge. The medical doctors of Missouri are ready, as always, to continue this tradition of service to patients in need without regard to payment.

"There is, however, an apparent trend toward provision of public funds for the health care of indigent people. This trend has been embodied in social security legislation providing federal funds, to be matched by the states, to be paid for indigent health service. State legislation will be called for to implement the federal law.

"It is the strong feeling of the Committee that the proposed state legislation, in view of its importance to the public welfare and the individual patients who may receive care should include provision for the appointment of a medical advisory committee to consult with and advise the State Department of Welfare on matters affecting all phases of medical care."

The minority report read: "It is the feeling of the minority of the Committee, (1) that the legislature should be appraised of the potential cost of medical care as outlined in Section 208.150; (2) that physicians recognizing the growth in population of aged and disabled aged, suggest that provision be made in the rules and regulations implementing such legislation for payment to physicians for service rendered and that such payments should bear an equitable relationship to sums paid other vendors in the health and welfare field."

On motion of Dr. Bull, seconded by Dr. Perry, it was voted to accept the majority report, with emphasis on the inclusion of a medical advisory committee. A motion by Dr. Muether, seconded by Dr. Dowell, that the Council go on record to exert every effort to see that in the administration of the bill there be a pro rata distribution of funds, lost on vote.

A.M.A. Legislative Committee

A letter from the A.M.A. requesting that a Legislative Committee be named was read. The names of Drs. Joseph C. Peden, St. Louis: Durward G. Hall, Springfield, and Ralph Perry, Kansas City, were suggested and on motion of Dr. Vohs, this appointment was approved.

Social Security

A resolution adopted by the Jasper County Medical Society was presented by the Councilor of that district, requesting action toward gaining coverage in Social Security for physicians. After discussion it was decided that this should go directly from the Jasper County Society to the House of Delegates since it was the House that had taken previous action. It was stated that Jenkins-Keough bills, H.R. 9 and 10, had been introduced in the Congress and it was suggested that physicians write urging adoption of these resolutions.

Civil Defense

The report of the Committee on Civil Defense was presented and on motion was accepted except the request for a budget for the Committee of $250.00. A separate request from the Chairman of the Committee that $200.00 be allowed to defray expenses for speakers at a dinner meeting of the Committee on Civil Defense at the annual session, after discussion, was approved.

Committee on Rural Health

The report of the Committee on Rural Health Service was presented including a request for approval by the Council of the appointment of a lay advisory committee to meet with the Committee in discussion of rural health problems. On motion of Dr. Dowell, this was approved.

Drugs

A bill which makes state laws concerning prescriptions conform to federal laws and which has been introduced in the legislature by the Division of Health, with the approval of the pharmaceutical group, was discussed briefly. On motion of Dr. Bull, the bill was approved.

Other Legislation

Several bills were discussed briefly which either have been introduced or will be, including one to increase the salary of the Director of Health, one on a Commission on Study of Aging which the MASW is sponsoring, one on chiropody which probably will be introduced. Dr. Bartlett presented a bill on the licensing of electrologists, which on motion of Dr. Muether was referred to the legislative committee.

Mental Health Committee

Dr. Thale presented the report of the Committee on Mental Health, reporting that the Committee approved proposed legislation by psychologists to set up a board for certification of psychologists. He said that the Committee approved S.B. 7 which allowed certain patients to be removed from State Mental Hospitals to convalescent homes, also a proposed bill on commitment which would make examination by only one physician necessary. On motion of Dr. Dowell, the report was accepted.

The Mental Health Committee in Session

S.B. 59 and S.B. 60 which deal with the director of the Division of Mental Health being either a physician or a person trained in hospital management and not necessarily a resident of Missouri were discussed; also H.B. 49 which designated that the head of the Division be a psychiatrist or physician. Dr. Thale said that the present bills and the Committee's opinion were not in conflict.

Special Committee

The special committee to study legislation in conference with representatives from the osteopathic group reported briefly and announced that another meeting would be held on January 27.

Poliomyelitis

Mr. Singleton reported on a meeting he and Dr. Daniel B. Landau, Hannibal, Chairman of the Committee on Infant and Child Care, had attended the previous day in Chicago. He said that the A.M.A. was disturbed that the coverage in immunization was not better and recommended several methods to states to remedy the situation. It was stated that Dr. Landau wished an early meeting of this Committee for study.

Health Service

"Guides for Medical Societies in Developing Plans for Tax-Supported Personal Health Services for the Needy," adopted by the House of Delegates of the A.M.A. in December 1956, were distributed to members of the Council.

W. F. FRANCKA, M.D., *Chairman*

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Phenacetin (3 gr.)	194.0 mg.
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Robins

MISSOURI STATE MEDICAL ASSOCIATION

The 99th Annual Session of the Missouri State Medical Association will be held at the Municipal Auditorium, Kansas City, March 31, April 1, 2 and 3, 1957.

TIME AND PLACE OF MEETINGS

Sunday, March 31

12:30 p. m. Registration for Delegates, Arena, Municipal Auditorium.
1:30 p. m. House of Delegates, Little Theater, Municipal Auditorium.
3:30 p. m. Reference Committees, Municipal Auditorium.
6:00 p. m. Social Hour, Buffet Supper, Entertainment, Woman's Auxiliary, Grand Ball Room, Hotel Muehlebach.

Monday, April 1

8:00 a. m. Registration, Arena, Municipal Auditorium.
8:00 a. m. Motion pictures, Little Theater, Municipal Auditorium.
9:00 a. m. Scientific Session, Little Theater.
10:00 a. m. Intermission to View Exhibits.
10:30 a. m. Scientific Session, Little Theater.
12:00 noon. Committee on Maternal Welfare Luncheon, Trianon Room, Hotel Muehlebach.
1:30 p. m. Motion pictures, Little Theater.
2:00 p. m. Scientific Session, Little Theater.
3:30 p. m. Intermission to View Exhibits.
4:00 p. m. House of Delegates, Little Theater.
5:00 p. m. Reference Committees, Municipal Auditorium.
6:00 p. m. Committee on Civil Defense Dinner, Colonial Room, Hotel Muehlebach.

Tuesday, April 2

8:00 a. m. Registration, Arena, Municipal Auditorium.
8:00 a. m. Motion pictures, Little Theater, Municipal Auditorium.
9:00 a. m. Scientific Session, Little Theater.
10:30 a. m. Intermission to View Exhibits.
11:00 a. m. Scientific Session, Little Theater.
12:00 noon. University of Missouri Alumni Luncheon, Terrace Grill, Hotel Muehlebach.
1:30 p. m. Motion pictures, Little Theater.
2:00 p. m. Scientific Session.
3:30 p. m. Intermission to View Exhibits.
4:00 p. m. Scientific Session.
7:30 p. m. Annual Banquet in Honor of past Presidents, Grand Ball Room, Hotel Muehlebach.

Wednesday, April 3

8:00 a. m. Registration, Arena, Municipal Auditorium.
8:00 a. m. Motion pictures, Little Theater, Municipal Auditorium.
9:00 a. m. Scientific Session, Little Theater.
10:30 a. m. Intermission to View Exhibits.
11:00 a. m. Scientific Session, Little Theater.
12:00 noon. Intermission.
1:30 p. m. House of Delegates, Little Theater.

SCIENTIFIC PROGRAM

Monday, April 1, 1957, Little Theater, Municipal Auditorium

8:00 a. m. Motion Picture: The Physiology and Conduct of Normal Labor.

Carl F. Vohs, M.D., St. Louis, Presiding.

9:00 a. m. Practical Application of the Laboratory in Diabetes Mellitus, Thomas W. Burns, M.D., Columbia.

9:30 a. m. Therapy of Malignant Lymphomas, Henry D. Diamond, M.D., New York, N. Y.

Too often the clinician, faced with a patient who is diagnosed as having Hodgkin's disease, delivers an unfavorable prognosis to the immediate family. When neurologic complications arise in such patients, the same clinician pronounces the prognosis as ominous or hopeless. In order to substantiate our clinical impression that neither was such a diagnosis necessarily unfavorable, nor the neurologic sequelae necessarily hopeless, the records of all patients with pathologically proved Hodgkin's disease at the Memorial Center for Cancer & Allied Diseases were reviewed and the nervous system sequelae analyzed from the standpoint of frequency of occurrence, pathogenesis, patho-physiology, diagnosis, treatment and end results of treatment. Records of 1,583 patients were so analyzed and 202 patients were found to have had one or another form of nervous system sequelum. A respectable salvage rate of patients with neurologic sequelae was effected.

10:00 a. m. Intermission to View Exhibits.

W. J. Shaw, M.D., Fayette, Presiding.

10:30 a. m. Diagnosis and Treatment of Common Skin Disorders, Sture A. M. Johnson, M.D., Madison, Wis.

There are several skin disorders which can be considered common. Probably dermatitis venenata or contact dermatitis is the most common skin disorder for which patients seek help. Diagnosis and treatment will be discussed. Recent advances in the therapy of seborrhea will be discussed as well as those of superficial ringworm infections and psoriasis with its unconformity. The therapy of acne vulgaris will be outlined. Two diseases of the aging skin, namely, seborrheic and senile keratoses, will be differentiated and the treatment outlined. Warts of various types will be demonstrated along with the types of therapy which might be utilized. Kodachrome slides will show the various conditions and suggested treatment.

11:00 a. m. Ovarian Carcinoma: Diagnosis and Treatment, Stuart Abel, M.D., Chicago, Ill.

11:30 a. m. Treatment of Cancer of the Cervix, J. A. del Regato, M.D., Colorado Springs, Colo.

12:00 noon Committee on Maternal Welfare Luncheon, Trianon Room, Hotel Muehlebach.
Joseph L. Johnston, M.D., Springfield, Presiding.
Discussion of Cases of Maternal Deaths Due to Toxemia.
Report of the Committee on Maternal Welfare.

1:30 p. m. Motion Picture: The Medical Witness.

Victor E. Scherman, M.D., St. Louis, Presiding.

2:00 p. m. Surgical Considerations of Acquired Diseases of the Aorta: Analysis of 500 Cases, Michael E. De Bakey, M.D., Houston, Texas.

2:30 p. m. Panel on Pediatrics, F. R. Crouch, M.D., Farmington, Moderator.
Panelists: Peter G. Danis, M.D., St. Louis.
J. A. Kinder, M.D., Cape Girardeau.
Ned W. Smull, M.D., Kansas City.
Walter R. Hepner, M.D., Columbia.

3:30 p. m. Intermission to View Exhibits.

4:00 p. m. House of Delegates.

Tuesday, April 2, 1957, Little Theater, Municipal Auditorium

8:00 a. m. Motion Picture: Grand Rounds: Acute Abdominal Problems.

9:00 a. m. Instruction Courses (attendance limited to 20 persons each).

The Menopausal Patient, H. C. Willumsen, M.D., St. Joseph.

Discussion will encompass the physiology of the menopause, the normal changes that may be expected to occur; and a discussion of the pros and cons regarding therapy in this age group with particular reference to the gynecologic aspect.

Office Proctology, Mark M. Marks, M.D., Kansas City.

Although much has been written about the office care of anorectal disease, the limitations and pitfalls that may be encountered are not well recognized. This phase of proctology will be stressed and illustrated with colored slides.

The Neurologic Examination, William P. Williamson, M.D., Kansas City, Kansas.

A demonstration of a routine neurologic examination will be presented with discussion of interpretation of the findings.

Electrocardiograph Interpretation, Michael Bernreiter, M.D., Kansas City.

The normal conduction mechanism of the heart will be described. The right and left ventricular pattern, as well as the ventricular cavity pattern on that basis will be shown. The changes which occur with injury, ischemia and death of the myocardium will be explained. The importance of the electrocardiogram in the diagnosis of posterior and anterior myocardial infarction will be stressed.

Jaundice, William A. Knight, Jr., M.D., St. Louis.

A brief summary of the differential diagnosis of jaundice by history, physical examination and laboratory studies will be presented. Newer concepts of bilirubin metabolism and the reliability of liver function studies will be discussed.

9:45 a. m. Instruction Courses (attendance limited to 20 persons each).

Hypertension, James P. Murphy, M.D., St. Louis.

A brief classification of hypertension will be given with emphasis on the types of hypertension. The necessary work-up in a given case will be reviewed with special attention to the need for tests of renal function and others. The various therapeutic agents available in the modern treatment will be mentioned, and some of the advantages and disadvantages discussed.

Obstetric Emergencies, Joseph L. Johnston, M.D., Springfield.

Obstetric emergencies usually come with unexpected suddenness and must be met promptly. Hemorrhage is the number one emergency. It produced 43 per cent of the obstetric deaths occurring in Missouri during the last three years. Massive blood loss may occur postpartum or from uterine rupture, abruptio placenta, placenta previa, inversion of the uterus, ruptured ectopic pregnancy, incomplete abortion and afibrinogenemia. Adequate and immediate blood replacement must be given with care to avoid transfusion reactions. Eclampsia, anesthetic accidents, cardiac disease, prolapsed cord, and pulmonary embolism are other obstetric emergencies to be discussed.

Treatment of Common Foot Conditions, Paul W. Meyer, M.D., Kansas City.

The Patient With a Painful Back, Ralph K. Earp, M.D., St. Louis.

Fluid and Electrolyte Balance, Harry Statland, M.D., Kansas City.

In the prevention and treatment of fluid imbalances it is necessary to order fluids with a view to correction of abnormalities of volume, concentration and acid-base imbalance. A brief review of normal fluid structure and its distortions will be presented. The fluid therapy for correction of these abnormalities will be covered in open discussion.

10:30 a. m. Intermission to View Exhibits.

R. E. Breuer, M.D., Newburg, Presiding.

11:00 a. m. Goiter Problems Encountered in Everyday Practice, Robert W. Bartlett, M.D., St. Louis.

Emphasis is placed on the means of identifying accurately the various types of goiters encountered in daily practice since the treatment to be recommended depends on the classification. Specifically the problems associated with the proper handling of the colloid, diffuse toxic and the adenomatous nodular goiter are discussed as well as the identification and management of acute thyroiditis. The means of separating the victims of functional nervousness from thyrotoxic patients are reviewed. Consideration is given the proper handling of patients with a goiter plus another unassociated major lesion. Data regarding the use and abuse of radioactive iodine in thyroid disease is presented.

11:30 a. m. Medical Problems of Aging and Long Term Illness, H. B. Mulholland, M.D., Charlottesville, Va.

Statistics will be given regarding the magnitude of the problem with predictions for the future. The age group over 65 years is increasing twice as rapidly as the general population. The physician's responsibility in regard to aging and chronic illness should continue wherever possible—the difficult efforts in the realm of primary prevention and searching our new sources of secondary prevention. Figures will be given on the number of disabled in the general population over 65 years of age. The most common conditions encountered are cardiovascular diseases, renal disease, arthritis and nervous and mental disease. The place of homes, long term hospitals, the nurse, the physician and the problems involved will be discussed.

12:00 noon University of Missouri Medical Alumni Luncheon, Terrace Grill, Hotel Muehlebach.

1:30 p. m. Motion Picture: The Case of the Doubting Doctor.

M. Pinson Neal, M.D., Columbia, Presiding.

2:00 p. m. Implications of Inflation for Medical Economics, Leonard W. Martin, Chicago, Ill.

After reviewing briefly the meaning of inflation, its duration and its sources, its implications for physicians will be examined. Inflation impinges upon physicians in at least three important areas of their activity: in their relationship as a professional group toward the general public centering around the behavior of their prices relative to that of other prices; secondly, focuses excessive attention on fee schedules; debtor-creditor relationships under inflation affects physicians both as businessmen and as citizens.

2:30 p. m. Citizen-Doctor, Thomas H. Alphin, M.D., Washington, D. C.

The American physician is almost the sole remaining symbol of the free, self-sufficient citizen standing alone without support from government subsidy. In this capacity his preservation is much more important for what he represents and maintains than for what he himself is. Throughout the history of our nation, physicians have been a part of and leaders in representative government. We must not now refuse to participate in government for to do so is to show loss of faith and the faith of the people is the most important and necessary resource of any government.

3:00 p. m. The Present Status of Anticoagulants, William T. Foley, M.D., New York, N. Y.

The leading cause of death and invalidism in persons over 50 is thromboembolism. For the first time, a means of attacking this problem directly came to the attention of physicians with the advent of heparin and coumarin derivatives. During the last twenty-five years every conceivable type of thromboembolism has been treated with anticoagulants or attempts at prophylaxis have been made. In some conditions the use of these drugs was disastrous, as in subacute bacterial endocarditis. In other conditions, they have been life saving. A summary of each disease and the effects of anticoagulant administration evaluated.

Cerebrovascular disease poses a challenge. More than 95 per cent of all strokes are due to thrombosis or embolism. Clinical research is being conducted in various centers, including the author's clinic, in an attempt to evaluate the role that anticoagulants should play in the management of cerebrovascular disease. The technic of administration of these drugs has undergone considerable change. Antidotes have been improved and will be discussed.

3:30 p. m. Intermission to View Exhibits.

Michael S. Wepprich, M.D., Washington, Presiding.

4:00 p. m. Clinical Pathologic Conference, Victor B. Buhler, M.D., Kansas City, Moderator.

Wednesday, April 3, 1957, Little Theater, Municipal Auditorium

8:00 a. m. Motion Pictures: Principles of Fracture Reduction. Metabolic Insufficiency Syndrome; Diagnosis and Treatment.

Roy W. Pearse, Jr., M.D., Nevada, Presiding.

9:00 a. m. Maxillo-facial Injuries, Clifford L. Kiehn, M.D., Cleveland, Ohio.

Emergency surgery of trauma of the face is too often delegated to junior members of the resident staff in the emergency ward of the hospital. Facial lacerations are too often closed in one layer with improper instruments and suture material, resulting in an ever widening scar. Certain principles of wound closure, pertaining to proper debridement and direction of closure resulting in less conspicuous scars will be shown. Methods of open reduction of facial fractures which eliminate all external cumbersome traction apparati will be discussed.

9:30 a. m. Chest Injuries, John H. Mayer, Jr., M.D., Kansas City.

10:00 a. m. Cord Injuries, George L. Hawkins, Jr., M.D., St. Louis.

10:30 a. m. Intermission to View Exhibits.

Wyeth Hamlin, M.D., Palmyra, Presiding.

11:00 a. m. Panel: The Multiple Injury Patient, O. P. Hampton, Jr., M.D., St. Louis, Moderator.

Panelists: Howard E. Snyder, M.D., Winfield, Kansas.
Herbert A. Hamel, M.D., Kansas City.
Leonard T. Furlow, M.D., St. Louis.
Clifford L. Kiehn, M.D., Cleveland.

1:30 p. m. House of Delegates.

DELEGATES

County Society	*Delegate*	*Alternate*
Andrew		
Audrain	G. P. Kallenbach, Mexico	B. N. Jolly, Mexico
Barton-Dade	Rudolph Knapp, Golden City	
Barton-Dade		
Benton	T. S. Reser, Cole Camp	James A. Logan, Warsaw
Boone	M. Pinson Neal, Columbia	C. M. Waggoner, Columbia
Boone	William Sodeman, Columbia	James Cope, Columbia
Buchanan	Robert B. Bristow, St. Joseph	Carl K. Ness, St. Joseph
Buchanan	Joseph L. Fisher, St. Joseph	Thompson E. Potter, St. Joseph
Butler-Ripley-Wayne	Cyril A. Post, Poplar Bluff	W. E. Henrickson, Poplar Bluff
Butler-Ripley-Wayne	Homer E. White, Naylor	Frank C. Johnson, Doniphan
Butler-Ripley-Wayne	Harold H. Cline, Piedmont	
Callaway	W. J. Cremer, Fulton	George F. Wood, Fulton
Camden	E. G. Claiborn, Camdenton	
Cape Girardeau	John T. Crowe, Cape Girardeau	E. F. McDonald, Jackson
Carter-Shannon	Charles Ottensmeyer, Van Buren	
Carter-Shannon		
Chariton-Macon-Monroe-Randolph	George Hawkins, Salisbury	Grover Rice, Brunswick
Chariton-Macon-Monroe-Randolph	James E. Campbell, Macon	Donald E. Eggleston, Macon

Chariton-Macon-Monroe-Randolph	Floyd A. Barnett, Paris	George M. Ragsdale, Paris
Chariton-Macon-Monroe-Randolph	Philip V. Dreyer, Huntsville	T. S. Fleming, Moberly
Clay	O. S. Pate, North Kansas City	Theodore Edwards, North Kansas City
Clinton	J. P. Mabrey, Plattsburg	P. T. Luckenbill, Plattsburg
Cole	G. Donald Shull, Jefferson City	Henry V. Guhleman, Jr., Jefferson City
Cooper		
Dallas-Hickory-Polk	O. A. Griffin, Jr., Buffalo	Evelyn Griffin, Buffalo
Dallas-Hickory-Polk		
Dallas-Hickory-Polk	Doyle McCraw, Bolivar	C. H. Barnett, Bolivar
Dunklin	Paul Baldwin, Kennett	Wallace D. English, Cardwell
Franklin-Gasconade-Warren	John Pearl, St. Clair	Frank Mays, Washington
Franklin-Gasconade-Warren	George Workman, Hermann	Robert Keller, Owensville
Franklin-Gasconade-Warren	Herbert Schmidt, Marthasville	Walter Eyermann, Warrenton
Grand River		
Caldwell	Howard Carter, Hamilton	Frank R. Daley, Hamilton
Livingston	V. D. Vandiver, Chillicothe	C. M. Grace, Chillicothe
Carroll	J. H. Platz, Carrollton	E. W. Allen, Carrollton
Grundy	C. L. Clark, Trenton	E. A. Duffy, Trenton
Daviess	F. K. Wilson, Winston	E. E. Nixon, Gallatin
Harrison	W. A. Broyles, Bethany	A. F. Nibbe, Bethany
Linn	J. R. Dixon, Brookfield	R. W. Bohnsack, Brookfield
Mercer	A. S. Bristow, Princeton	F. H. Zahrt, Princeton
DeKalb	G. D. Johnson, Maysville	
Greene	Walter W. Tillman, Jr., Springfield	Don F. Gose, Springfield
Greene	Stanley S. Peterson, Springfield	H. A. Lowe, Jr., Springfield
Greene	John P. Ferguson, Springfield	F. T. H'Doubler, Jr., Springfield
Henry	W. D. Bradshaw, Clinton	William J. Smith, Windsor
Holt		
Howard	William J. Shaw, Sr., Fayette	
Jackson	Philip L. Byers, Kansas City	James D. Bennett, Kansas City
Jackson	Mark Dodge, Kansas City	Robert C. Buckner, Kansas City
Jackson	Will R. Eubank, Kansas City	Herbert A. Hamel, Kansas City
Jackson	John A. Growdon, Kansas City	James E. Keeler, Kansas City
Jackson	Frederick J. McCoy, Kansas City	David B. Morgan, Kansas City
Jackson	Raymond L. Morrow, Kansas City	Edward H. Stratemeier, Kansas City
Jackson	Herbert H. Virden, Kansas City	Lawrence E. Steffen, Kansas City
Jackson	Robert M. Drisko, Kansas City	Hector W. Benoit, Jr., Kansas City

Jackson	Dillard M. Eubank, Raytown	Robert W. Forsythe, Kansas City
Jackson	William W. Gist, Kansas City	Clarke L. Henry, Kansas City
Jackson	William M. Kitchen, Kansas City	Revis C. Lewis, Kansas City
Jackson	William C. Mixson, Kansas City	Jack E. Schiffmacher, Kansas City
Jackson	Clark W. Seely, Kansas City	Robert E. Skillman, Kansas City
Jackson	Joseph C. Williams, Jr., Kansas City	Jean D. Willoughby, Kansas City
Jackson	William Q. Wu, Kansas City	
Jackson		
Jasper		S. W. Scorse, Joplin
Jasper	J. A. Putnam, Joplin	W. T. McNew, Carthage
Jefferson	Charles E. Fallet, DeSoto	Robert H. Donnell, Crystal City
Johnson	Charles M. Lederer, Warrensburg	David R. Holmes, Warrensburg
Lafayette-Ray	W. E. Martin, Odessa	B. H. Brasher, Lexington
Lafayette-Ray	I. E. Goldberg, Braymer	M. C. Johnson, Richmond
Lewis-Clark-Scotland	P. W. Jennings, Canton	L. Y. Davis, Canton
Lewis-Clark-Scotland	J. R. Bridges, Kahoka	
Lewis-Clark-Scotland		
Lincoln-St. Charles		
Lincoln-St. Charles		
Marion-Ralls-Shelby		
Marion-Ralls-Shelby		
Marion-Ralls-Shelby		
Mid Missouri		
Phelps	W. R. Lytle, Rolla	E. A. Stricker, St. James
Crawford	A. R. Baumann, Steelville	C. E. Carnahan, Bourbon
Dent		
Pulaski	C. S. Miller, Waynesville	
Maries		
Laclede	H. W. Carrington, Lebanon	G. E. Fisher, Lebanon
Miller	W. L. Allee, Eldon	
Mineral Area		
St. Francois	Harry M. Roebber, Bonne Terre	Marvin T. Haw, Jr., Bonne Terre
Iron		Marvin C. Menne, Ironton
Madison	Marvin Grossman, Fredericktown	Charles E. Michaelis, Fredericktown
Washington	George F. Cresswell, Potosi	
Reynolds	Andrew F. Bugg, Ellington	
Ste. Genevieve	Arthur E. Sexauer, St. Genevieve	Clare J. Clapsaddle, St. Genevieve
Moniteau		
Montgomery	E. J. T. Andersen, Montgomery City	S. J. Byland, Wellsville
Morgan	Ruth Kauffman, Versailles	Ray Lyle, Versailles
Nodaway-Atchinson-Gentry-Worth		
Nodaway-Atchinson-Gentry-Worth		

Nodaway-Atchinson-Gentry-Worth.		
Nodaway-Atchinson-Gentry-Worth.		
North Central		
Adair	J. J. Wimp, Kirksville	S. L. Freeman, Kirksville
Schuyler		
Knox		
Sullivan		
Putnam		
Ozarks		
Barry	Robert R. Donley, Monett	Mary J. N. Newman, Cassville
Lawrence	Kenneth Glover, Mt. Vernon	A. P. Capetti, Aurora
Stone	Fred L. Wommack, Crane	
Christian	Stanley Roper, Ozark	
Taney	Jesse M. Threadgill, Forsyth	Joseph D. Bennett, Branson
Newton	M. C. Bowman, Neosho	H. C. Lentz, Neosho
McDonald	George W. Blankenship, Anderson	
Pemiscot	A. G. Shirey, Hayti	S. B. Beecher, Caruthersville
Perry	Jerome J. Bredall, Perryville	Richard R. Grayson, Perryville
Pettis	John E. Lamy, Sedalia	D. C. Proctor, Sedalia
Pike	Charles H. Lewellen, Lousiana	W. Joe Martin, Louisiana
Platte		
St. Louis City	Leonard T. Furlow, St. Louis	James P. Murphy, St. Louis
St. Louis City	Arthur W. Neilson, St. Louis	Charles S. Sherwin, St. Louis
St. Louis City	John P. Eberle, St. Louis	Herbert C. Wiegand, St. Louis
St. Louis City	Benjamin H. Charles, St. Louis	R. Dean Woolsey, St. Louis
St. Louis City	Robert W. Kelley, St. Louis	Don C. Weir, St. Louis
St. Louis City	Daniel L. Sexton, St. Louis	Myron W. Davis, St. Louis
St. Louis City	Preston C. Hall, St. Louis	Carl A. Wattenberg, St. Louis
St. Louis City	Willard Bartlett, St. Louis	A. H. Conrad, Jr., St. Louis
St. Louis City	Bernard T. Koon, St. Louis	Minot P. Fryer, St. Louis
St. Louis City	Curtis H. Lohr, St. Louis	Dean Sauer, St. Louis
St. Louis City	Sam J. Merenda, St. Louis	Charles E. Martin, St. Louis
St. Louis City	Joseph C. Peden, Sr., St. Louis	Joseph C. Peden, Jr., St. Louis
St. Louis City	Jerome I. Simon, St. Louis	Robert E. Funsch, University City
St. Louis City	Joseph E. Von Kaenel, St. Louis	Harry K. Purcell, St. Louis
St. Louis City	Harold E. Walters, St. Louis	Alfred F. Sudholt, Jr., St. Louis
St. Louis City	Louis H. Kohler, St. Louis	Robert Rainey, St. Louis
St. Louis City	Dean Sauer, St. Louis	Bray O. Hawk, St. Louis
St. Louis City	Frank McDowell, St. Louis	Joseph C. Edwards, St. Louis
St. Louis City	Joseph C. Edwards, St. Louis	George H. Lawrence, St. Louis
St. Louis City	Paul F. Max, St. Louis	John F. Shaner, St. Louis
St. Louis City	J. William Thompson, St. Louis	Edward M. Cannon, St. Louis
St. Louis City	Robert B. Bassett, St. Louis	James W. Owen, Jr., St. Louis
St. Louis City	Donald O. Burst, St. Louis	Eugene T. Dmytryk, St. Louis
St. Louis City	Frank G. Zingale, St. Louis	J. Otto Lottes, St. Louis
St. Louis City	Walter T. Gunn, St. Louis	Arthur R. Dalton, St. Louis
St. Louis City	George L. Hawkins, Jr., St. Louis	Carl E. Lischer, St. Louis
St. Louis City	George E. Thoma, Jr., St. Louis	Albert M. Repetto, St. Louis

St. Louis		
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St. Louis		
Saline	R. C. Haynes, Sr., Marshall	C. A. McBurney, Slater
SEMO		
Stoddard	Richard Comeau, Dexter	Stephen Parks, Bloomfield
New Madrid	Samuel M. Sarno, Morehouse	Charles C. Reeder, New Madrid
Mississippi	John E. Dernoncourt, Charleston	Wilbur L. Davis, Charleston
Scott	W. O. Finney, Chaffee	A. B. Smith, Sikeston
South Central		
Howell	Rollin H. Smith, West Plains	C. F. Callihan, West Plains
Oregon	C. W. Cooper, Thayer	A. T. Walker, Mammoth Spring, Ark.
Texas	J. L. Spears, Cabool	J. R. Tarr, Houston
Wright	S. W. Connor, Mountain Grove	R. W. Denney, Mountain Grove
Douglas	M. C. Gentry, Ava	
Ozark	Deborah Doan, Bakersfield	
Webster	T. M. Macdonnell, Marshfield	Carey R. Macdonnell, Marshfield
West Central		
Bates	A. L. Hansen, Butler	Edward E. Robinson, Adrian
Cass	O. B. Barger, Harrisonville	Coburn Ellis, Garden City
Cedar	Robert L. Magee, El Dorado Springs	William B. Richter, Stockton
St. Clair	R. H. Brownsberger, Appleton City	D. H. Giesler, Appleton City
Vernon	Roy W. Pearse, Nevada	R. B. Wray, Nevada

COMMITTEE ON CIVIL DEFENSE

The Committee on Civil Defense will hold a dinner meeting on Monday evening, April 1, in the Colonial Room, Hotel Muehlebach, Kansas City, to which all members are invited.

Program

6:00 p. m. Dinner.
Curtis H. Lohr, M.D., Clayton, Medical Director, St. Louis County Hospital, Presiding.

7:00 p. m. Opening Remarks, Carroll P. Hungate, M.D., Kansas City, Chairman, Committee on Civil Defense, and James R. Amos, M.D., Jefferson City, Director, Division of Health.

7:10 p. m. The Medical Care of Mass Casualties, Colonel Joseph R. Schaeffer, MC, USA, Chief, Department of Atomic Casualties Studies, Walter Reed Institute of Research, Washington, D. C.

7:50 p. m. Question and Answer period.

8:00 p. m. The Biological Effects of Atomic Radiation, Dr. Albert W. Bellamy, Professor of Zoology and Biophysics, University of California, Los Angeles, Moderator.
Panelists: Dr. Paul Tompkins, Scientific Director, U. S. Navy Radiological Laboratory, San Francisco.
Dr. Victor P. Bond, Medical Department, Brookhaven Laboratory, Upton, Long Island, N. Y.
Mr. Benton Killian, Radiological Laboratory, Region 4, Federal Civil Defense Administration, Battle Creek, Mich.

Adjournment.

Meat Protein...

and the Many Physiologic Functions of Its Amino Acids

The amino acids supplied by meat protein function in many vital ways in addition to their well-known role in the growth and maintenance of tissues. They participate in the body economy as precursors of hormones, vitamins, enzymes, and other physiologic agents.*

Some of the important amino acids supplied by the protein of meat include: tryptophan (utilized for the endogenous production of niacin); tyrosine (the precursor of thyroxine and triiodothyronine); phenylalanine (converted to melanin, a pigment found in the skin, hair, retina, and other tissues; both phenylalanine and tyrosine are precursors of the hormones noradrenalin and adrenalin); glycine (participates in the formation of glutathione, a tripeptide important in tissue oxidation, in the biosynthesis of glycocholic acid, and in the production of purines, uric acid, and porphyrins used structurally for hemoglobin, cytochromes, and iron-containing enzymes); methionine (an important lipotropic agent; participates in transmethylation processes in which creatine, adrenalin, and choline phospholipids are formed).

Top quality protein, as supplied by meat, yields important amino acids for participation in these and other important functions. The excellent balance of available amino acids is an outstanding feature of meat protein.

---

*Geiger, E.: Digestion, Absorption and Metabolism of Protein, in Wohl, M. G., and Goodhart, R. S.: Modern Nutrition in Health and Disease, Philadelphia, Lea & Febiger, 1955, pp. 98-143.

The nutritional statements made in this advertisement have been reviewed by the Council on Foods and Nutrition of the American Medical Association and found consistent with current authoritative medical opinion.

American Meat Institute
Main Office, Chicago...Members Throughout the United States

MISSOURI CHAPTER

American College of Chest Physicians
Hotel President, Kansas City
Sunday, March 31, 1957

PROGRAM

11:30 a. m. Business meeting.

12:00 noon Luncheon

Mucoid Impaction of the Bronchi, Robert R. Shaw, M.D., Professor of Surgery, University of Texas, Southwestern Medical School, Dallas, Texas.

Rheumatic Mediastinitis, a Factor in Persistent Rheumatic Fever, Graham Asher, M.D., Cardiologist, Kansas City.

Further Experiences With the Surgery of Histoplasmosis, John Polk, M.D., Springfield; Charles A. Brasher, M.D., Mount Vernon, and W. W. Buckingham, M.D., Kansas City.

Clinical-Surgical Pathologic Conference.
Henry Sweany, M.D., Director, Research Pathology and Allied Sciences, Missouri State Sanitarium.
Charles A. Brasher, M.D., Mount Vernon.
W. W. Buckingham, M.D., Kansas City.

X-Ray Conference: To which any are welcome to bring interesting x-rays.

For the X-Ray Conference, members should contact W. W. Buckingham, M.D., Professional Bldg., Kansas City, or David N. Kerr, M.D., 950 Francis Place, St. Louis. Luncheon reservations at $3.50 should be made with Dr. Kerr.

MISSOURI SOCIETY OF MEDICAL TECHNOLOGISTS

The 10th Annual Session of the Missouri Society of Medical Technologists will be held at the Municipal Auditorium, Kansas City, March 31, April 1, 2 and 3, 1957.

Any member of the medical profession, administrative or technical personnel, or members of allied professions are invited to register.

Sunday, March 31, 1957

2:00 p. m. Advance Registration. St. Mary's Hospital, 101 Memorial Drive.
3:00 p. m. Business Meeting. St. Mary's Hospital, 101 Memorial Drive.
7:00 p. m. Buffet Supper. St. Mary's Hospital, 101 Memorial Drive.

Monday, April 1, 1957—Municipal Auditorium, Room 500

8:30- 4:30 Registration. Room 500.

9:00- 4:30 Scientific Session. Room 500.
Presiding: Sister Ann Marie Skinner, R.S.M., M.A., M.T. (ASCP), St. John's Hospital, St. Louis.
Alternate: Sister Martin Mary Fruchtl, S.S.M., M.S., M.T. (ASCP), St. Mary's Hospital, Kansas City.

9:00 a. m. Invocation, Reverend John Gerst, S.J., St. Francis Xavier Church, Kansas City.

9:05-11:40 Enzyme Symposium.

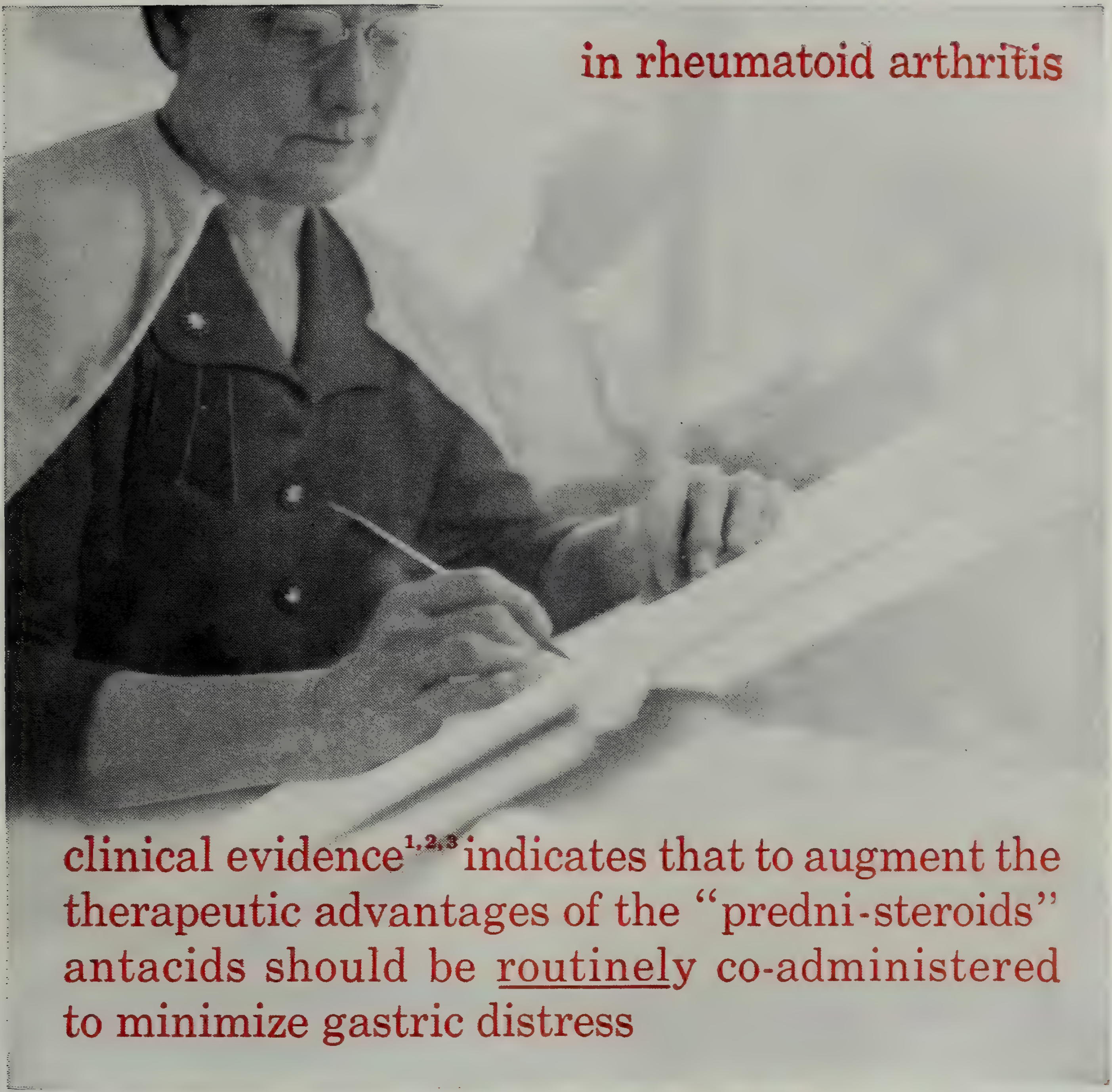
9:05 a. m. Clinical Applications of Laboratory Determinations for Amylase, Lipase, Trypsin and Pepsin. Eugene F. Tucker, M.D., Director of Laboratories, St. Mary's Hospital of St. Louis.

9:40 a. m. A Phosphatase Study of Three Methods. Sister Mary Laureen Harris, S.S.M., B.S., M.T. (ASCP), Department of Medicine, Firmin Desloge Hospital, St. Louis.

10:10 a. m. Transaminase—Methods of Determination. Myron N. Jorgensen, Ph.D., Associate Professor of Biochemistry, University of Kansas City; Counsellor Biochemistry, St. Mary's Hospital and Menorah Medical Center, Kansas City.

10:40 a. m. Orinase and Its Use in Diabetes. Milton Katz, M.D., Menorah Hospital, Kansas City.

11:10 a. m. Question and Answer Panel.

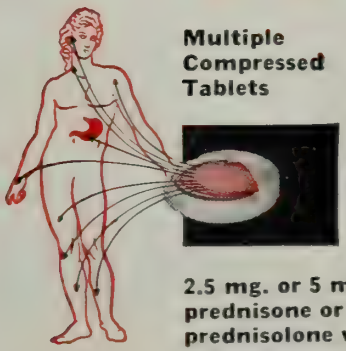


in rheumatoid arthritis

clinical evidence[1,2,3] indicates that to augment the therapeutic advantages of the "predni-steroids" antacids should be routinely co-administered to minimize gastric distress

ROUTINE CO-ADMINISTRATION MEANS

'Co-Hydeltra'
(Prednisolone Buffered)



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All the benefits of the "predni-steroids" plus positive antacid action to minimize gastric distress.

References: 1. Boland, E. W., *J.A.M.A.* 160:613 (February 25) 1956. 2. Margolis, H. M. *et al.*, *J.A.M.A.* 158:454 (June 11) 1955. 3. Bollet, A. J. *et al.*, *J.A.M.A.* 158:459 (June 11) 1955.

'CO-DELTRA' *and* 'CO-HYDELTRA' *are trademarks of* MERCK & CO., INC.

Lois Brunner, Moderator, B.A., M.T. (ASCP), Menorah Hospital, Kansas City.
Sister Mary Laureen Harris, S.S.M., B.S., M.T. (ASCP), Department of Medicine, Firmin Desloge Hospital, St. Louis.
Myron N. Jorgensen, Ph.D., Associate Professor of Biochemistry, University of Kansas City; Counsellor in Biochemistry, St. Mary's Hospital and Menorah Medical Center, Kansas City.
Milton Katz, M.D., Menorah Hospital, Kansas City.
Gertrude Minter, M.T. (ASCP), St. Mary's Hospital, Kansas City.
Eugene F. Tucker, M.D., Director of Laboratories, St. Mary's Hospital, St. Louis.

11:40 a. m. Intermission—View Exhibits.
12:30 p. m. Demonstrations. Room 502.
Transaminase, Technics on the:
Beckman Du. Lois Brunner, B.A., M.T. (ASCP), Menorah Hospital, Kansas City.
Coleman Jr. Gertrude Minter, M.T. (ASCP), St. Mary's Hospital, Kansas City.
Spectronic 20. Harold Grady, Ph.D., Associate Professor in Biochemistry, University of Kansas Medical Center, Kansas City.

SCIENTIFIC SESSION, ROOM 500

Presiding: Yolanda Boveri, B.S., M.T. (ASCP).
Alternate: Mary Pexa, M.T. (ASCP).
2:00 p. m. Significant Findings in Peripheral Blood. Robert Skillman, M.D., Kansas City.
2:30 p. m. The Estimation of Red Cell Mass and Red Cell Survival Time. Marie Carr, M.A., Research Biochemist, V. A. Hospital, Kansas City.
3:00 p. m. Intermission.
Presiding: Elizabeth Ulrich, B.S., M.T. (ASCP), St. Mary's Hospital, Kansas City.
Alternate: Marie Anderson, M.T. (ASCP), American Red Cross, Springfield.
3:10 p. m. The Laboratory Diagnosis of the Hemorrhagic Diseases. Gustave Eiseman, M.D., Instructor in Medicine, University of Kansas Medical Center; Chief, Hematology Section, Menorah Hospital, Kansas City.
3:40 p. m. Hemoglobin Methods: Marjorie Sirridge, M.D., Kansas City.
4:10 p. m. The Medical Technologist in Research. Perry Morgan, Ph.D., Assistant Professor, Department of Microbiology, University of Kansas Medical Center, Kansas City.
6:30 p. m. Fellowship Hour, sponsored by Scientific Products, Division of American Hospital Supply Corporation. Milleman's Restaurant.
7:30 p. m. Joint Dinner with Pathologists. Milleman's Restaurant.

Tuesday, April 2, 1957—Municipal Auditorium, Room 500

Presiding: Mary Ellen Donegan, B.S., M.T. (ASCP), St. Joseph's Hospital, Kansas City.
Alternate: Ruth Neseth, B.S., M.T. (ASCP), Kansas City General Hospital, Kansas City.
9:00 a. m. The Use of the Coombs' Test in the Diagnosis of Hemolytic Anemias. Victor Buhler, M.D., Pathologist, St. Joseph's Hospital, Kansas City.
9:40 a. m. Clinical Interpretation of Long Anticoagulant Therapy. William T. Foley, M.D., Assistant Professor of Medicine, Cornell University, New York.
10:00 a. m. Intermission.
Presiding: Frances Wolfskill, B.S., M.T. (ASCP), Trinity Lutheran Hospital, Kansas City.
Alternate: Joan Dexter, B.S., M.T. (ASCP), St. Joseph's Hospital, Kansas City.
10:10 a. m. Some Sources of Error in Laboratory Procedures. J. H. Hill, M.D., Pathologist, Trinity Lutheran Hospital; Associate in Pathology, University of Kansas Medical Center, Kansas City.
10:40 a. m. Lipoprotein in Coronary Diseases. Lauren R. Moriarty, M.D., Associate Pathologist, St. Mary's Hospital; Pathologist, St. Margaret's Hospital, Kansas City.

11:10 a. m. Visit Viral Demonstrations and Exhibits. Room 500.
11:40- 1:40 Panel Discussion Luncheon. Hotel President.
I. Hematology
II. Blood Bank
III. Bacteriology
IV. Chemistry

SCIENTIFIC SESSION, ROOM 500

Presiding: Beverly Fiorella, B.S., M.T. (ASCP), St. Mary's Hospital, Kansas City.
Alternate: Genevieve Wood, B.S., M.T. (ASCP), St. Louis County Hospital, St. Louis.
2:00 p. m. Research on Tumor Cells. Chauncey Bly, Ph.D., M.D., Associate Professor of Pathology and Oncology, University of Kansas Medical Center, Kansas City.
2:30- 4:30 Virology Symposium.
2:30 p. m. Handling of Specimens for Viral Study. Jeannette Carter, Ph.D., M.T. (ASCP), Bacteriologist, St. Joseph's Hospital, Kansas City.
3:00 p. m. The Complement Fixation and Hemagglutinin Tests in Viral Diagnosis. Rose Rita Schmidt, M.S., M.T. (ASCP), Virus Research Laboratory, Department of Internal Medicine, St. Louis University, St. Louis.
3:30 p. m. The Use of Tissue Culture Technics in Diagnostic Virology. Alvar Werder, Ph.D., Professor, Department of Microbiology, University of Kansas Medical Center, Kansas City.
4:00 p. m. Question and Answer Panel.
Betty Hamilton, Moderator, M.S., Research Assistant, Department of Microbiology, University of Kansas Medical Center, Kansas City.
Jeannette Carter, Ph.D., Bacteriologist, St. Joseph's Hospital, Kansas City.

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Tablets

Each tablet contains:
Aspirin .... 200 mg. (3 grains)
Phenacetin .... 150 mg. (2½ grains)
Caffeine .... 30 mg. (½ grain)
Demerol hydrochloride .... 30 mg. (½ grain)

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1 or 2 tablets.
Narcotic blank required.

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Julie Lindstrom, M.A., Instructor, Department of Microbiology, University of Kansas Medical Center, Kansas City.

Rose Rita Schmidt, M.S., M.T. (ASCP), Viral Research Laboratory, Department of Internal Medicine, St. Louis University, St. Louis.

Alvar Werder, Ph.D., Professor, Department of Microbiology, University of Kansas Medical Center, Kansas City.

4:30 p. m. Visit Exhibits and Demonstrations.

Wednesday, April 2, 1957—Municipal Auditorium, Room 500

Presiding: Erline Spickard, B.S., M.T. (ASCP), St. John's Hospital, Springfield.

Alternate: Marian Winter, B.S., M.T. (ASCP), St. Mary's Hospital, Kansas City.

9:00 a. m. Medico-Legal Laboratory Procedures in a General Hospital Laboratory. Angelo Lapi, M.D., Pathologist, St. Mary's Hospital; Associate Professor, Department of Pathology, University of Kansas Medical Center, Kansas City.

9:30 a. m. Blood Changes During Heart Surgery. Jane McNamee, B.S., M.T. (ASCP), Cardinal Glennon Memorial Hospital, St. Louis.

10:00 a. m. Intermission.

10:10 a. m. Tedium or Technology. Jack Widick, B.S., General Office, Scientific Products, Division of American Hospital Supply Corporation.

10:40 a. m. Chromatographic Analysis, Present Uses and Possibilities in the Clinical Laboratory. Max Berenbom, Ph.D., Assistant Professor of Oncology and Biochemistry, University of Kansas Medical Center, Kansas City.

11:10 a. m. Laboratory Diagnosis of Systemic Fungal Infections. Thorkil Jensen, Ph.D., Assistant Professor, Department of Microbiology, University of Kansas Medical Center, Kansas City.

11:40 a. m. Visit Demonstrations. Room 502.

SCIENTIFIC SESSION, MUSIC HALL

Presiding: Sister John Brenden, S.S.J., M.T. (ASCP), St. Joseph's Hospital, Kansas City.

Alternate: Anne Sommer, B.S., M.T. (ASCP), St. Louis County Hospital, St. Louis.

2:00- 4:30 Chemistry Seminar.

2:00 p. m. Protein Bound Iodine. Albert Upsher, M.D., Pathologist, Director Upsher Laboratories, Kansas City.

2:30 p. m. Clinical Value of Electrolyte Balance Studies and Importance of the Technologists' Role. Daniel Darrow, M.D., Mercy Hospital; Professor of Pediatrics, University of Kansas Medical Center, Kansas City.

3:00 p. m. Intermission.

3:10 p. m. Blood Ammonia. Harold Grady, Ph.D., Associate Professor in Biochemistry, University of Kansas Medical Center, Kansas City.

3:40 p. m. Continuous-Flow Electrophoresis. Irvin Snyder, B.S., Research Assistant, Department of Microbiology, University of Kansas Medical Center, Kansas City.

4:10 p. m. Question and Answer Panel.

Rachel Creager, Moderator, M.T. (ASCP), Kansas City General Hospital, Kansas City.

Marie Carr, M.A., Research Biochemist, V. A. Hospital, Kansas City.

Daniel Darrow, M.D., Mercy Hospital; Professor of Pediatrics, University of Kansas Medical Center, Kansas City.

Joan Dexter, B.S., M.T. (ASCP), St. Joseph's Hospital, Kansas City.

Harold Grady, Ph.D., Associate Professor in Biochemistry, University of Kansas Medical Center, Kansas City.

Betty Ried, B.S., M.T. (ASCP), Supervisor Upsher Laboratories, Kansas City.

Irvin Snyder, B.S., Research Assistant, Department of Microbiology, University of Kansas Medical Center, Kansas City.

4:40 p. m. Visit Demonstrations. Room 502.

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FINANCIAL STATEMENT FOR 1956

LENNERTSON AND COMPANY
CERTIFIED PUBLIC ACCOUNTANTS

ROBERT A. LENNERTSON, C. P. A.
MEMBER—AMERICAN INSTITUTE OF ACCOUNTANTS

RICHARD J. LENNERTSON, C. P. A.
SAINT LOUIS 5, MISSOURI

February 1, 1957

Missouri State Medical Association,
634 North Grand Boulevard,
St. Louis, Mo.

Gentlemen:

An examination has been made of the books of account of the Missouri State Medical Association for the year 1956. The report on the examination is presented together with the following statements:

Exhibit A	Balance Sheet
Exhibit B	Income Statement
Exhibit C	Statement of Committee and Meeting Expenses
Exhibit D	Dues Receivable and Membership by Counties

In connection with the statements, it should be noted that members' dues are taken into income on the cash basis; whereas the other accounts are maintained on the accrual basis. Items paid in advance, except members' dues, are shown as prepaid and carried forward to the year to which they apply.

Scope of Examination

The Balance Sheet at December 31, 1956 and the Income Statement for the year ended with that date were reviewed. Examinations or tests were made of the accounting records, in the manner and to the extent deemed appropriate, without making a detailed audit of the transactions.

Cash in banks, as shown by the books, was reconciled with the regular monthly bank statements and confirmations received from the depositaries. The petty cash fund of $25.00 and United States Savings Bonds with a par value of $55,000.00, were verified by physical inspection. Bond interest of $1,388.00 was properly accounted for on the books. Recorded cash receipts for the year were traced in total into the bank accounts as deposits, and disbursements for the period were substantiated by an inspection of paid checks, purchase invoices and other data on file. Selective tests were made of the income and expense accounts for the period. It was noted that Journal space was contributed for advertising United States Bonds and small classified ads for members and the widows of members.

Income Statement

The financial result of the activities of the Association for the year 1956 was an excess of income over expenses of $10,658.68 as set forth in Exhibit B. Exhibit C supports Exhibit B and presents a summary of committee and meeting expenses for the year.

Balance Sheet

The financial position of the Association at December 31, 1956 is presented in Exhibit A, and additional comments follow on Balance Sheet accounts.

Accounts Receivable—Advertisers $6,727.40, represented the unpaid balances due from Advertisers at the year end. Of this amount $6,703.40 was due from the State Journal Advertising Bureau for November and December 1956. $3,788.01 was received on January 14, 1957 to apply on this account.

Unpaid Dues of $1,982.50, offset by a reserve account in like amount, represents 1956 dues of delinquent members carried at December 31, 1956 at the requests of the local societies. Other delinquent members were dropped from membership in accordance with the by-laws. Exhibit D presents a summary of unpaid 1956 dues, prepaid 1957 dues and membership by counties, as shown by the records of the Association.

Furniture and Fixtures continue to be stated in the fixed amount of $1,000. Purchases and repairs during the year were charged to expense in lieu of depreciation.

Records and data on file were carefully reviewed for liabilities at December 31, 1956 and it is believed that all current liabilities of substantial amount are included in the Balance Sheet. A contingent liability of $600 is reported in connection with two malpractice suits pending against members. The Association is required to furnish assistance in an amount not to exceed $300 in each case, under the provisions of its by-laws.

Exhibitors have made advance payments of $3,015.00 for the 1957 annual session exhibit space and these payments will be taken into income when earned in 1957.

General

Insurance policies were inspected and the following insurance was in force at the close of the year:

Insurance on	*Type of Coverage*	*Amount*
Furniture and Fixtures	Fire and Extended Coverage (80 per cent co-ins.)	$3,000.00
Employees	Workmen's Compensation	Statutory
Lessee's Liability	Bodily Injury	$25,000/50 000.00
Treasurer	Fidelity Bond	20,000.00
Executive Secretary	Fidelity Bond	1,000.00
Employees (Executive Secretary, Field Secretary and Business Manager)	Endowment Life Policies with Disability Benefits (Cash Value $17,019.60) 3 policies—coverage each	12,000.00
Automobiles of Executive Secretary and Field Secretary	Non-ownership—Bodily Injury	$50,000/100,000.00
	Property Damage	5,000.00

Subject to the comments thereon, the attached financial statements, in our opinion, present fairly the position of the Missouri State Medical Association at December 31, 1956 and the financial result of its activities for the year then ended, in accordance with accepted principles of accounting applied on a basis consistent with that of the preceding year.

Yours very truly.
Lennertson & Company.
Certified Public Accountants.

Exhibit A

Missouri State Medical Association
Balance Sheet, December 31, 1956

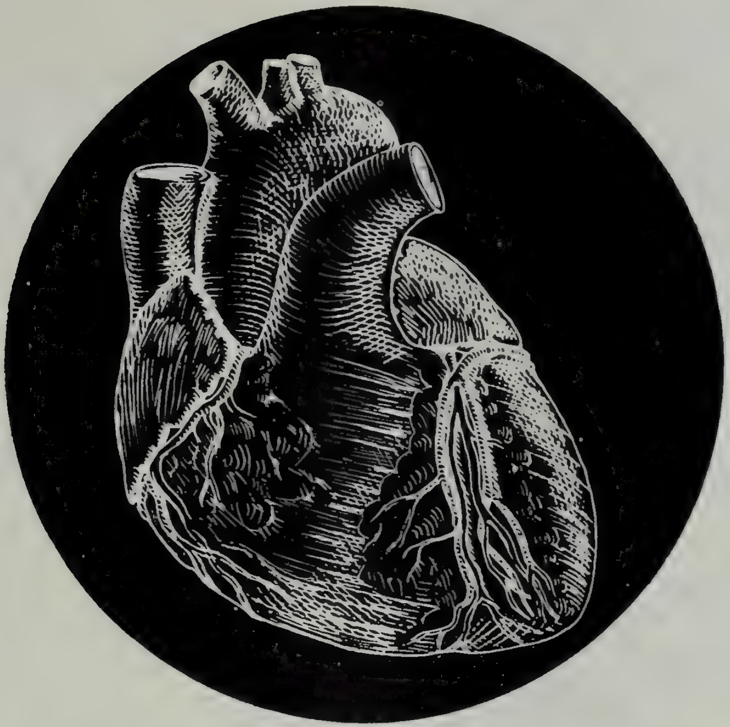
Assets		
Cash		
Mercantile Trust Company (Treasurer's Account)	$42,976.31	
Mercantile-Commerce National Bank (Secretary's Account)	355.94	
Petty Cash Fund	25.00	$ 43,357.25
U. S. Savings Bonds—Series G 2½%—Cost and Par Value (Maturing 1957—$15,000; 1958—$25,000; 1959—$10.000)	$50,000.00	
Series G 2¾%—Cost and Par Value (Maturing 1967)	5,000.00	55,000.00
Accounts Receivable—Advertisers		6,727.40
Dues Receivable—Exhibit D		1,982.50
Furniture and Fixtures (at stated value)		1,000.00
Advances for Travel Expense		273.12
		$108,340.27

Liabilities		
Accounts Payable		
Supplies and Expenses	$ 6,332.37	
Payroll Taxes	876.53	$ 7,208.90
Dues Collected for American Medical Association		525.00
Deferred Credit to Income Advance Payments by Exhibitors		3,015.00
Contingent Liability to Members on Two Malpractice Suits—$600.00		....
Reserve for Uncollected Dues		1,982.50
Reserve for Future Activities		
Balance January 1, 1956	$84,950.19	
Excess of income over expenses for the year 1956 (Exhibit B)	10,658.68	95,608.87
		$108,340.27

Exhibit B

Missouri State Medical Association
Income Statement for the Year 1956

Particulars	*General Activities*	Journal *Publication*	*Total*
INCOME			
Dues Received (includes $1.00 per member annually for The Journal)	$74,965.75	$ 3,213.00	$ 78,178.75
Rentals—Annual Session Exhibit Space	7,800.00		7,800.00
Subscriptions to The Journal—Nonmembers		174.10	174.10



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Pediatric Elixir: 0.05 mg. in each cc.
Ampuls: 0.5 mg. in 2 cc.

*'Lanoxin' was formerly known as Digoxin 'B. W. & Co.' The new name has been adopted to make easier for everyone the distinction between digoxin and digitoxin.

BURROUGHS WELLCOME & CO. (U. S. A.) INC., *Tuckahoe, New York*

Advertising Space—The Journal		38,910.47	38,910.47
Interest on U. S. Savings Bonds	1,388.00		1,388.00
Collection Fees on A.M.A. Dues	733.12		733.12
Total Income	$84,886.87	$42,297.57	$127,184.44
EXPENSES			
Salary—Executive Secretary	$ 8,400.00	$ 4,200.00	$ 12,600.00
Office Salaries	18,304.93	9,152.47	27,457.40
Employees Retirement Insurance Premiums	2,550.60		2,550.60
Office Rent and Light	3,124.09		3,124.09
Postage	2,094.22	773.17	2,867.39
Stationery, Printing and Office Supplies	2,524.46		2,524.46
Directories and Clipping Service	662.90		662.90
The Journal—Paper, Printing, etc.		28,726.80	28,726.80
Cash Discounts to Advertisers		14.89	14.89
Commissions on Journal Advertising		4,276.61	4,276.61
Telephone and Telegraph	1,574.86		1,574.86
Insurance—General	154.30		154.30
Professional Fees	1,850.00		1,850.00
Taxes—Payroll and Personal Property	1,020.49		1,020.49
Traveling Expense—Executive Secretary	1,492.84		1,492.84
Traveling Expense—Field Secretary	2,570.16		2,570.16
Committees and Meeting Expenses (Exhibit C)	22,250.99		22,250.99
Equipment Purchases and Repairs in lieu of Depreciation	346.18		346.18
General Expenses	460.80		460.80
Total Expenses	$69,381.82	$47,143.94	$116,525.76
Net Income or (Loss) for the Period	$15,505.05	$(4,846.37)	$ 10,658.68

Exhibit C

Missouri State Medical Association
Statement of Committee and Meeting Expenses
For the Year 1956

Annual Session		$ 8,871.22
Council Meetings and Councilors' Expenses		3,557.87
Delegates to A.M.A.		1,541.75
Public Relations		4,402.52
Women's Auxiliary		1,186.91
Committees:		
American Medical Education Foundation	$ 42.40	
Civil Defense	95.76	
Conservation of Eyesight	46.01	
Health and Public Instruction	427.89	
Hospital and Professional Relations	200.00	
Industrial Health	81.66	
Infant Care	36.45	
Maternal Welfare	24.64	
Medical Economics	266.70	
Mental Health	64.87	
Medical Education and Hospitals	569.35	
Physical Medicine	38.10	
Public Policy and Relations	505.02	
Publications	66.10	
Rural Medicine	74.48	
Scientific and Postgraduate Work	127.29	
Tuberculosis	24.00	2,690.72
Total		$22,250.99

Exhibit D

Missouri State Medical Association
Dues Receivable and Membership by Counties
December 31, 1956

Counties	Membership					
	Total	Junior	Active	Honor	Unpaid Dues	Prepaid Dues
Andrew	6	1	4	1		
Audrain	20	3	15	2		
Barton-Dade	10	1	7	2		$ 280.00
Benton	2			2		
Boone	69	1	62	6	$ 75.00	
Buchanan	92	4	72	16		
Butler-Ripley-Wayne	31	2	28	1	25.00	
Callaway	14		7	7		
Camden	1		1			35.00
Cape Girardeau	47	3	35	9		
Carter-Shannon	2	1	1			52.50
Chariton-Macon-Monroe-Randolph	31	1	25	5		
Clay	49	7	41	1		
Clinton	7	1	5	1		
Cole	43	1	40	2		6.25
Cooper	14		13	1	50.00	
Dallas-Hickory-Polk	7		6	1		
Dunklin	25	1	21	3	50.00	665.00
Franklin-Gasconade-Warren	27	1	24	2		
Grand River (Caldwell-Livingston-Carroll-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb)	56	5	43	8		805.00
Greene	138	3	126	9		
Henry	14	2	11	1		
Holt	4		1	3		25.00
Howard	7		7			
Jackson	764	49	606	109		
Jasper	78	3	62	13		
Jefferson	16		15	1		
Johnson	11	1	9	1		
Lafayette-Ray	29	5	20	4		
Lewis-Clark-Scotland	4		4			
Lincoln-St. Charles	26	1	23	2	112.50	
Marion-Ralls-Shelby	30	1	24	5		
Mid-Missouri (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)	41	5	35	1	162.50	
Miller	3		3			105.00
Mineral Area (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)	31	3	25	3		
Moniteau	5	1	4			175.00
Montgomery	4		3	1		105.00
Morgan	5		5			
Nodaway-Atchison-Gentry-Worth	19	2	16	1		
North Central (Adair-Schuyler-Knox-Sullivan-Putnam)	18		9	9		
Ozarks (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)	45	2	38	5	20.00	
Pemiscot	24	2	18	4	12.50	17.50
Perry	13	2	9	2		367.50
Pettis	32		27	5	25.00	
Pike	13	2	7	4		
Platte	5		5			
St. Louis City	1,256	81	1,057	118	875.00	345.00
St. Louis County	388	20	348	20	325.00	
Saline	23	2	17	4	25.00	
Semo (Stoddard-New Madrid-Mississippi-Scott)	36		27	9	25.00	
South Central (Howell-Oregon-Texas-Wright-Douglas-Ozark	27	4	17	6		
Webster	3		2	1		70.00
West Central (Bates-Cass-Cedar-St. Clair-Vernon)	50	1	41	8	200.00	
Totals	3,715	225	3,071	419	$1,982.50	$3,053.75
					(A)	

(A) Delinquent dues of members at December 31, 1956 carried at the requests of local societies.

Budget for 1957

Salaries	$ 52,460.00
Journal Expense	33,500.00
Postage, Printing & Stationery	5,000.00
Travel: Executive Secretary	1,500.00
Travel: Field Secretary	3,300.00
Telephone & Telegraph	1,500.00
Office Rent & Light	4,700.00
Meetings & Committee Expense	25,400.00
Defense	500.00
Scientific & Postgraduate Work	500.00
Woman's Auxiliary	1,200.00
Public Relations	7,500.00
Insurance Annuity	2,700.00
Miscellaneous General Expense	3,325.00
Furniture & Fixtures	500.00
Social Security Tax	650.00
Unemployment Tax	650.00
Legal Expense	3,200.00
Total	$148,085.00

ACHROCIDIN is indicated for prompt control of undifferentiated upper respiratory infections in the presence of questionable middle ear, pulmonary, nephritic, or rheumatic signs; during respiratory epidemics; when bacterial complications are observed or expected from the patient's history.

Early potent therapy is provided against such threatening complications as sinusitis, adenitis, otitis, pneumonitis, lung abscess, nephritis, or rheumatic states.

Included in this versatile formula are recommended components for rapid relief of debilitating and annoying cold symptoms.

Adult dosage for ACHROCIDIN Tablets and new, caffeine-free ACHROCIDIN Syrup is two tablets or teaspoonfuls of syrup three or four times daily. Dosage for children according to weight and age.

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Each tablet contains:

ACHROMYCIN® Tetracycline	125 mg.
Phenacetin	120 mg.
Caffeine	30 mg.
Salicylamide	150 mg.
Chlorothen Citrate	25 mg.

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From the Medical Schools

UNIVERSITY OF MISSOURI

Trips and Talks

On Sunday, January 6, 1957, from 4:30 to 5:00 p.m., Dr. Roscoe L. Pullen, Dean of the University of Missouri School of Medicine, presented an illustrated talk over television station KOMU-TV, Columbia, Missouri. The title of the presentation was "Serving the People of Missouri Through Medicine," and Dr. Pullen gave a most interesting and informative narrative interspered with motion pictures in black and white of the interior of the University Hospital and the School of Medicine. The program was of considerable interest to those in the KOMU-TV viewing area, as facilities of the new Medical Center were brought directly into their homes and they were apprised of the newest and most recent developments in the field of medicine as offered by the University of Missouri School of Medicine.

At the January 8, 1957, meeting of the Boone County Medical Society held in the Medical Science Building of the University of Missouri, Dr. W. A. Sodeman, professor and chairman, Department of Medicine, presented a talk entitled: "Steatorrhea." Following the talk by Dr. Sodeman, Dr. Gwilym S. Lodwick, professor and chairman, Department of Radiology, gave an interpretation and demonstration of roentgenograms for a discussion of chronic steatorrhea.

A tour of the University Hospital and School of Medicine was arranged and conducted by Dr. Lodwick for members and guests of the University of Missouri Club. Approximately fifty people were shown through the new Medical Center. Dr. Lodwick was assisted by Dr. Frank B. Engley, Assistant Dean and professor and chairman, Department of Microbiology; Dr. Claude K. Leeper, assistant professor, Department of Pathology; Dr. Theodore E. Keats, associate professor, Department of Radiology; Dr. James E. Bauer, instructor, Department of Radiology, and Mr. John Perry, assistant to the director, University Hospital.

Dr. John H. Killough, associate professor, Department of Medicine, spoke at a meeting of the Ozark Medical Society on January 8, 1957, in Monett, Missouri. Dr. Killough used as his subject: "Diagnosis and Management of Emphysema" and the meeting was attended by some thirty members of the Society.

Dr. Thomas W. Burns, assistant professor, Department of Medicine, spoke at a meeting of the Gamma Sigma Delta honor society of the University of Missouri on December 17, 1956, using as his subject: "Egypt in the Modern World." The meeting was attended by approximately 250 members of the organization.

Dr. Clarence D. Davis, professor, Department of Obstetrics and Gynecology, and Dr. George J. Fuchs, assistant professor, Department of Obstetrics and Gynecology, attended a meeting of the St. Louis Gynecological Society on December 13, 1956. Forty professional members were in attendance.

Dr. A. M. Evans, chief of internal medicine, Ellis Fischel State Cancer Hospital, spoke on "The Problem of the Placebo" to the December 11, 1956, meeting of the Phi Chi Medical Fraternity in the Medical Science Building, University of Missouri School of Medicine.

Dr. T. D. Luckey, professor and chairman, Department of Biochemistry, spoke to the University Chapter of the American Chemical Society on December 12, 1956, using as his subject "The Chemistry of Vision." There were approximately forty attending the meeting.

Postgraduate Education

The fifth in the series of Postgraduate Medical Education sessions was held January 10, 1957, at the University of Missouri Medical Center with Dr. Samuel P. W. Black, associate professor, Department of Surgery, as the speaker. Dr. Black used as his subject "Management of Subarachnoid Hemorrhage." Following this presentation, a Correlative Clinic was held by the Department of Pediatrics.

Awards

Dr. Hugh E. Stephenson, Jr., associate professor and chairman, Department of Surgery of the University of Missouri School of Medicine, was named by the United States Junior Chamber of Commerce as one of the ten outstanding young men of the nation for 1956. Dr. Stephenson was chosen for this high award on the basis of: (1) His part in establishing the first course to acquaint doctors with problems of practical cardiac resuscitation; (2) his role in the development of the four year medical school at the University. Dr. Stephenson has been a member of the faculty of the University of Missouri School of Medicine for the last three years.

Gifts and Grants

A grant in the amount of $4,140.00 has been awarded Dr. A. W. Merrick, assistant professor, Department of Physiology and Pharmacology, by the Department of Health, Education and Welfare, U. S. Public Health Service. The period covered by the grant is December 1, 1956 to November 30, 1957, and is to be used for a in vitro study of the effects of primary cations upon mammalian cardiac glycogen fractions.

New Appointees

New appointees to the Department of Surgery, University of Missouri School of Medicine, beginning January 1, 1957, are Dr. Charles Edward Nichols, assistant instructor and 3rd year resident, who came from the Missouri Baptist Hospital in St. Louis; Dr. Raymond Oscar Frederick, instructor in surgery and 4th year resident, from the Bellevue Medical Center, New York; Dr. William Hall Wade, instructor in surgery and 4th year resident, from Northwestern University Medical School, Chicago, Illinois; Dr. Ronald G. Severs, assistant instructor in surgery and 1st year resident, from State University of Iowa; and Dr. Richard William Yore, clinical associate in surgery, from Washington University School of Medicine, St. Louis.

A new appointee to the Department of Obstetrics and Gynecology is Dr. Harold M. Haugen, instructor and 3rd year resident from the University of Colorado.

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Just Published!—The first manual of its kind dealing with cervical and thoracic spinal root syndromes from the internist's and general practitioner's point of view. Its primary aim is to aid the diagnostician in definitely determining the significance of chest pain—Is it coronary disease or is it of root origin? In addition to the detailed coverage of chest pain, Dr. Davis goes fully into discussion of chest wall tenderness, respiratory distress, shoulder girdle symptoms, headache, and vertigo of cervical origin. Greatest stress is properly placed on clarifying diagnostic problems. Treatment is also given concisely and simply to make for a thoroughly complete consideration.

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SAINT LOUIS UNIVERSITY

Memorial

Plans for a St. Louis memorial ceremony are being made for Dr. Albert Kuntz, director of the department of anatomy, who died suddenly January 19. Dr. Kermit Christensen, professor of anatomy, is serving as acting director of the department, until Dr. Kuntz' successor is appointed. Dr. Kuntz, who was 77 years old, was an international authority on the autonomic nervous system. He had been on the faculty for the last forty-four years. He was the author of "The Autonomic Nervous System," published in 1929, which became universally used as the standard textbook on the subject. There have been many specific applications of his work in the field of surgery of the autonomic system. These have been concerned with the treatment of various vascular disorders. His systematic description of this part of the nervous system resulted in radical revisions of the surgeon's approach to this type of problem. At the time of his death, he was revising his textbook "Neuro-Anatomy," published in 1931. The fifth edition was published in 1950.

Honors

Dr. Walter J. Burdette, professor of clinical surgery and director of the Saint Louis University Surgical Service at Veterans Hospital, has been elected a Fellow of the New York Academy of Sciences in recognition of his outstanding achievements in science. Election to Fellowship is a distinguished honor, conferred on a limited number of members, who in the estimation of the Council of the Academy have done outstanding work toward the advancement of science. Candidates for the honor were selected from among the 12,300 members of the Academy. The Academy, organized in 1817, is the fourth oldest scientific society in the United States.

Lectures

Dr. Shields Warren, professor of pathology, Harvard Medical School and pathologist at New England Deaconess Hospital, delivered the Twelfth Annual Hanau W. Loeb lecture sponsored by the Alpha Pi Chapter of Phi Delta Epsilon Medical Fraternity January 8. Dr. Warren's subject was "Man and His Atomic Environment." The pathologist is the former Director of the Division of Biology and Medicine of the U. S. Atomic Energy Commission and member of the Advisory Committee on Biology and Medicine of the U. S. Atomic Energy Commission. The lectureship was established in 1946 in honor of the late Dr. Hanau W. Loeb, who served as Dean of the School of Medicine from 1914 to 1927.

Dr. C. Rollins Hanlon, director of the department of surgery, presented a paper titled "The Management of the Patient With a Gastric Ulcer" before the 12th Annual Postgraduate Course presented by the University of Kansas School of Medicine, January 23. He also was participant on a panel titled "Surgical Treatment of Cancer."

Dr. Louis H. Kohler, associate professor of clinical neurology and psychiatry, delivered an address as retiring president of the St. Louis Medical Society at Inaugural Ceremonies held January 8.

Dr. Ralph Strength, assistant professor of biochemistry, spoke before the residents and house staff at

Veterans Hospital, January 21 and 28. The topic of his lecture was "Principles of Enzymology."

Rev. Alphonse M. Schwitalla, S.J., Dean Emeritus, addressed the Firmin Desloge Hospital Auxiliary January 28. He reviewed the 24 year history of the hospital.

Dr. T. N. Dougherty, professor of anatomy, University of Utah School of Medicine, visited the Physiology Department January 16 to 18. He was the guest speaker at a seminar held at the School of Medicine titled "Mechanism of Steroid Anti-inflammatory Effects."

Appointments

Dr. Willard Bartlett, assistant professor of clinical surgery, has been appointed as a consultant to the Council on Pharmacy and Chemistry of the American Medical Association.

Dr. Otakar Machek, instructor in orthopedic surgery, has been named Medical Director of the St. Louis Chapter of the Arthritis and Rheumatism Foundation. Mr. Joseph F. Kelly, Jr., is President of the Foundation. Offices of the local chapter opened at Firmin Desloge Hospital January 16.

TV Appearances

Five members of the faculty have participated in a TV series titled "Community Health Problems" which is sponsored by the St. Louis Medical Society. Participants, their subjects and dates of appearances have included: Dr. Herbert C. Sweet, director of the Miller Pulmonary Laboratories, Firmin Desloge Hospital, "Pulmonary Diseases," December 21; Dr. Armand E. Brodeur, instructor in radiology, "A Heart Model Demonstration," December 28; Dr. Daniel E. O'Reilly, senior instructor in orthopedic surgery, "Rehabilitation," January 4, and Drs. C. Rollins Hanlon, director, Department of Surgery, and James P. King, director, Department of Pediatrics, "Children's Congenital Heart Diseases," January 25. The series is telecast over Station KTVI-TV each Friday at 6:45 p.m.

Gifts

Amvet Post 22 of the University's 70th General Hospital Unit has presented the School of Nursing with thirty volumes of books to be used in its graduate nursing program. Presentation was made by Miss Mildred Hilliard, R.N., who will be awarded her B.S. Degree in Nursing Education in June. Dr. Edwin J. Casey, senior instructor in ophthalmology, is president of the organization. Dr. Hyman Goldman, assistant professor of clinical dermatology, is secretary. Both were members of the planning committee. Post 22 is made up primarily of the graduates and students of the University who served overseas during World War II.

WASHINGTON UNIVERSITY

Meetings

Four research papers were presented by faculty members at a meeting of the Washington University Medical Society on February 7 at the medical center. These included: "Cellular Differentiation in the Tubules of the Mouse Kidney, Studied With the Electron Microscope," by Dr. Sam L. Clark, Jr., instructor, and Lowell M. Palmer, senior fellow in anatomy; "Alterations in the Adrenal Cortex Induced by Severe So-

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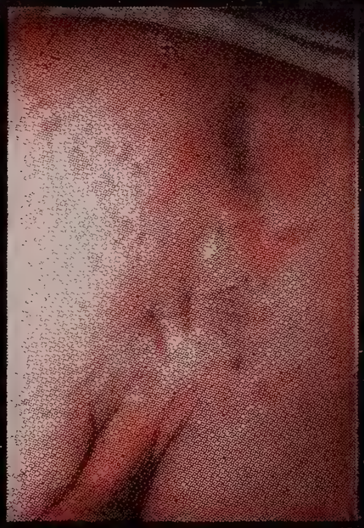

BEFORE

Reddened, fissured and excoriated perianal skin, and whitening of the anal folds, accompanied by intense burning and itching of 3 years' duration.

A new therapeutic approach with inherent safety in PRURITUS ANI

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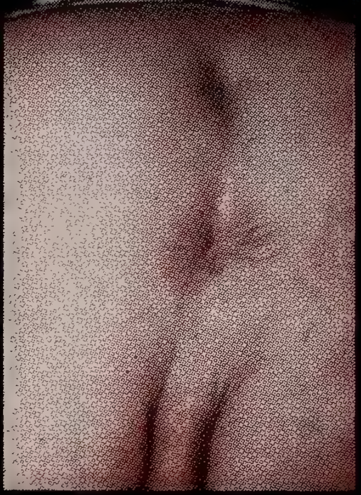

AFTER

Same case after treatment with Hydrolamins. Note healing of the inflamed, fissured and excoriated areas and of the whitened anal folds.

Unique physiologic barrier—topical amino acids—brings rapid relief (98%[1]) and complete healing (88%[1])

"...the objectives of therapy in pruritus ani can be listed under 3 headings:

(1) **relieve itching:** [Hydrolamins produced immediate relief of intractable itching in 98% of patients. The antipruritic effect of one application lasts about twenty-four hours.[1]]

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Due to the rapidity of action of Hydrolamins, it is believed that protein-precipitating irritants, responsible for the pruritus, are neutralized. Hydrolamins also forms a biochemical barrier against further irritation.

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1. Bodkin, L.G., and Ferguson, E.A., Jr.: Successful Ointment Therapy for Pruritus Ani, Am. J. Digest. Dis. 18:59 (Feb.) 1951.
2. Fromer, J.L.: Dermatologic Concepts and Management of Pruritus Ani, Am. J. Surg. 90:805 (Nov.) 1955.

dium Deficiency," by Dr. Phyllis M. Hartroft, research assistant in pathology, and Dr. Albert B. Eisenstein, assistant professor of medicine and preventive medicine; "A Biochemical Basis for the Mechanism of Action of Penicillin and for Its Selective Toxicity," by Dr. Jack Strominger, assistant professor of pharmacology and Markle scholar in pharmacology; and "Fourteen Year Follow-Up of 98 Patients With Polycythemia Vera Treated With Radioactive Phosphorus," by Dr. Edward H. Reinhard, associate professor of medicine and consultant in hematology and oncology to the Mallinckrodt Institute of Radiology.

Dr. Cushman D. Haagensen, professor of clinical surgery at the College of Physicians and Surgeons, Columbia University, recently discussed "Carcinoma of the Breast: Recent Advances in Diagnosis and Treatment" at the medical center. The lecture was sponsored by the Medical School.

Dr. Ira J. Hirsh, research associate in audiology in otolaryngology at the Medical School, spoke on "New Light on Speech and Hearing" recently at Washington University. The lecture was the fourth in a "Frontiers of Science" series sponsored by the St. Louis Public Schools Advisory Committee for science teachers in city and county high schools.

Dr. E. V. Cowdry, director of the Wernse Laboratory of Cancer Research at the Medical School, addressed the opening session of a scientific conference held recently in Washington on the nature of the aging process on the nervous system. The conference, held at the National Institutes of Health, was said to be the first of its kind sponsored by the U. S. Public Health Service.

Dr. Carl V. Moore, Busch professor and head of the department of medicine, was moderator for a conference on "Iron in Clinical Medicine" held January 28 at the University of California Medical Center in San Francisco.

Election, Appointments

Dr. Hallowell Davis, professor of physiology and research professor of otolaryngology at the Medical School and director of research for the Central Institute for the Deaf, has been appointed a special consultant to the National Institute of Neurological Disease and Blindness. The Institute is a division of the National Institutes of Health and is under the jurisdiction of the United States Department of Health, Education and Welfare. Another recent appointment was that of Dr. Herman N. Eisen, professor of medicine (dermatology), to the Allergy and Immunology Study Section of the U. S. Public Health Service.

Dr. Richard Paddock, assistant professor of clinical obstetrics-gynecology, has been elected president of St. Luke's Hospital Medical Staff Association, succeeding Dr. William G. Becke, instructor in clinical medicine. Dr. Herbert C. Wiegand, instructor in clinical medicine, is secretary-treasurer of the association.

Honors

Dr. Arthur W. Proetz, professor emeritus of clinical otolaryngology, who retired recently from active practice of medicine, was honored at a dinner given in January by the Ear, Nose and Throat Club of St. Louis. In a citation the club expressed to Dr. Proetz "its great respect and admiration for his outstanding leadership in medical education—for his service as a good will ambassador for otolaryngology throughout the world; for his devotion to his patients and for his interest in and help to young men of his specialty." Medical associates and other friends of Dr. Proetz from various parts of the United States came to St. Louis to attend the dinner. Dr. Proetz is president of the forthcoming Sixth International Congress of Otolaryngology. Although retired from active practice, he will continue as editor of the *Annals of Otology, Rhinology and Laryngology* and as a member of the American Board of Otolaryngology, which he headed in 1949-50. He also will continue medical research.

Dr. Paul W. Preisler, research associate in biological chemistry, received the 1956 Page One Civic Award of the St. Louis Newspaper Guild January 21. The award was given in recognition of his one man campaign to preserve the rights of citizens from "political spoilation," according, to Herbert L. Monk, Guild president, who made the presentation.

Grants

Two grants totaling $27,305 recently were awarded to faculty members of the Medical School by the National Foundation for Infantile Paralysis. Dr. Eli Robins, associate professor of psychiatry, was awarded a grant of $20,707 to continue studies into why polio virus is destructive to certain areas of the central nervous system while sparing other areas. Investigations of the way muscles become paralyzed after the central nervous system is invaded by polio virus will be continued under a grant of $6,598 by Dr. James L. O'Leary, professor of neurology.

DEATHS

Lanning, R. W., M.D., Ste. Genevieve, a graduate of St. Louis Medical College, 1896; honor member of the Mineral Area County Medical Society; aged 84; died December 3.

Summers, Joseph S., Sr., M.D., Jefferson City, a graduate of the University of Missouri School of Medicine, 1908; member of the Cole County Medical Society; aged 86; died December 23.

Shaver, Nellie A., M.D., St. Louis, a graduate of Barnes Medical School, 1913; member of the St. Louis County Medical Society; aged 74; died December 29.

Denny, Robert B., M.D., St. Louis, a graduate of Barnes Medical College, 1903; Past President of the Missouri State Medical Association; honor member of the St. Louis County Medical Society; aged 86; died January 13.

White, Charles A., M.D., St. Louis, a graduate of the Indiana Medical College of Indianapolis, 1898; honor member of the St. Louis Medical Society; aged 91; died January 14.

Deppe, Arthur H., M.D., St. Louis, a graduate of Washington University School of Medicine, 1910; member of the St. Louis Medical Society; aged 68; died January 18.

Yazel, Herman E., M.D., Kansas City, a graduate of Ensworth Medical College, St. Joseph, 1907; honor member of the Jackson County Medical Society; aged 76; died January 19.

TUBERCULOSIS ABSTRACT

Issued by the National Tuberculosis Association.
By James M. Blake, M.D., and Kencil L. Mitton, M.D., *New York State Journal of Medicine,* October, 1956.

The discovery and isolation of the unknown cases of tuberculosis has been and continues to be the primary objective in the control of this disease. This objective will become increasingly important as the death rate and morbidity rate decline.

The population may be divided into four groups for the purpose of detecting significant cases of tuberculosis:

1. Those patients who visit their physicians because of symptoms of disease in the lungs. This is by far the most important group not only because of the higher incidence of tuberculosis among them, but also because if tuberculosis is the cause of their symptoms, they already are spreaders of the disease.
2. Patients admitted to general hospitals. The symptoms of pulmonary disease and the presence of disease in the lungs may or may not have been the reason for admission to the hospital. The presence of pulmonary diseases may merely have been coincidental. These individuals are frequently symptomatic and under the observation of a physician. They are second in importance to the first group only from the point of view of classification.
3. Those individuals who have close contact with a known case of active tuberculosis.
4. The apparently healthy individuals.

This discussion is concerned with the routine admissions to general hospitals. Group studies on the prevalence of tuberculosis in general hospital admissions up to within the last two years have shown x-ray evidence of tuberculosis in from 2.8 to 8.1 per cent of the patients admitted. Of this group the presence of active tuberculosis has varied from 0.6 to 1.8 per cent. These studies have shown further that active tuberculosis in individuals x-rayed on admission to general hospitals has been from two to six times as productive in the yield of significant tuberculosis as have other types of mass x-ray examinations.

A review of the admission x-ray program at Ellis Hospital (Schenectady, New York) demonstrated the value of this procedure. Admission chest x-rays should be routine in general hospitals since they aid in discovering more unknown disease than other routine admission examinations. The value of admission x-rays to the physician is in direct relationship to utilization and interest. The follow-up study is an important part of the program.

The detection of infectious, active tuberculosis and the isolation of the patient in the general hospital is of significance from many points of view. The protection of the hospital personnel by the proper isolation of the patient is obvious. The contributions to the care of the patient in the demonstration and discovery not only of tuberculosis but of nontuberculous diseases of the chest and cardiovascular system are also important. The admission x-ray is of greater value than are many other routine laboratory procedures. It has been demonstrated in various studies that clinically significant abnormalities of the chest are found in from 10 to 15 per cent of all patients examined.

The normal practice of most physicians today is based on routine examinations. Blood count, urinalysis, Wassermann, history and physical examinations are basic procedures in evaluating the patient's problem. The admission chest x-ray has become a part of the program of more progressive general hospitals. One might say another routine examination is provided the patient and the physician as part of the first day's admission fee.

The significance and the value of the admission x-ray to the physician is in direct relationship to his utilization and interest. It is not infrequent to observe patients having multiple examinations to determine the diagnosis when the answer is photographically inscribed on the photoroentgenogram on the back of the chart.

There perhaps has been some reluctance in reference to the photoroentgenogram x-ray, based on opinions that the so-called small film is not entirely satisfactory for diagnosis. Certainly, one would not wish to make a final evaluation based on the small x-ray, but the error is usually on the side of safety. The value of an x-ray examination is limited entirely to the interpretation which is placed on the shadows in that x-ray and the aid they give in guidance to other examinations and treatments.

The admission x-ray program at the Ellis Hospital was one of the earliest established in New York State, having been instituted in 1947. A comparative study between the first full year of operation of this program and the last completed year of service, 1948 to 1954, is shown in tables 1 and 2.

TABLE 1

ELLIS HOSPITAL ADMISSION X-RAYS

	Year	
	1948	*1954*
Number of adult admissions	11,487	11,281
Number of admissions x-rayed	8,734	8,641
Per cent of admissions x-rayed	76	76
Total x-rays	11,039	11,621
Diagnosis of admission x-rays by x-ray department		
Total abnormal diagnoses		
Number	1,599	1,452
Per cent	14.4	12.4
Total nontuberculous diagnoses		
Number	1,259	1,248
Per cent	11.4	10.7
Total active tuberculosis diagnoses		
Number	158	82
Per cent	1.4	0.70
Total inactive tuberculosis diagnoses		
Number	182	122
Per cent	1.6	1.04

These comparative statistics would seem to confirm observations of the declining incidences of tuberculosis. It is hoped that this tendency will continue until the disease is no longer of major concern. However, until the problem of immunity in tuberculosis is solved, the search for persons with unknown tuberculosis and the supervision of spreaders of tuberculosis will continue to be the safeguard for keeping the death rate and the morbidity rate at a minimum.

The discovery of tuberculosis in mass surveys of the general population, in contrast to selected groups such as general hospital admissions, calls for the examination of more and more individuals to find a single case of significant tuberculosis. This has reached the point today of almost insignificant yield. The search for tuberculosis in the future must be more selective than it has been in the past. As the incidence of tuberculosis declines and ambulant treatment of tuberculosis increases, the responsibility of the family physician in the control of tuberculosis becomes greater. Likewise, the general hospital will have to assume greater responsibility for this program in its community.

The follow-up study of tuberculosis and other diseases of the lungs detected by such examinations is perhaps the most important phase of the program. The patients involved are under the care of their family physicians and he is responsible for the follow-up study. More and more hospitals are accepting chest x-ray programs as an established procedure which has significance both to the physician and to the patient in arriving at a diagnosis. A serious argument for the establishment of such programs is the physician's responsibility for follow-up evaluation. This is particularly important when the growing rate of malpractice suits is considered.

Failure to use the x-ray at all, or failure to make sufficient use of the x-ray, has been the chief allegation in many malpractice actions. It seems reasonable, therefore, to point out that failure to give routine x-ray on hospital admissions may in the not too distant future be considered negligence.

TABLE 2

FOLLOW-UP STUDY OF ADMISSIONS DIAGNOSED ACTIVE AND INACTIVE TUBERCULOSIS IN RELATION TO TOTAL NUMBER X-RAYED

Diagnosis	*Year* 1948	1954
	ACTIVE TUBERCULOSIS	
Active tuberculosis		
Number	40	4
Per cent of total x-rayed	0.35	0.03
Inactive tuberculosis		
Number	35	8
Per cent of total x-rayed	0.32	0.06
	INACTIVE TUBERCULOSIS	
Active tuberculosis		
Number	2	1
Per cent of total x-rayed	0.01	0.008
Inactive tuberculosis		
Number	126	61
Per cent of total x-rayed	1.14	0.52

MISSOURI SOCIETY OF ANESTHESIOLOGISTS

The annual meeting of the Missouri Society of Anesthesiologists will be held at Hotel Muehlebach, Kansas City, on Sunday, March 31, 1957.

Program

10:30 a. m. Annual Business Meeting.
12:15 p. m. Luncheon.
1:30 p. m. Scientific Program.

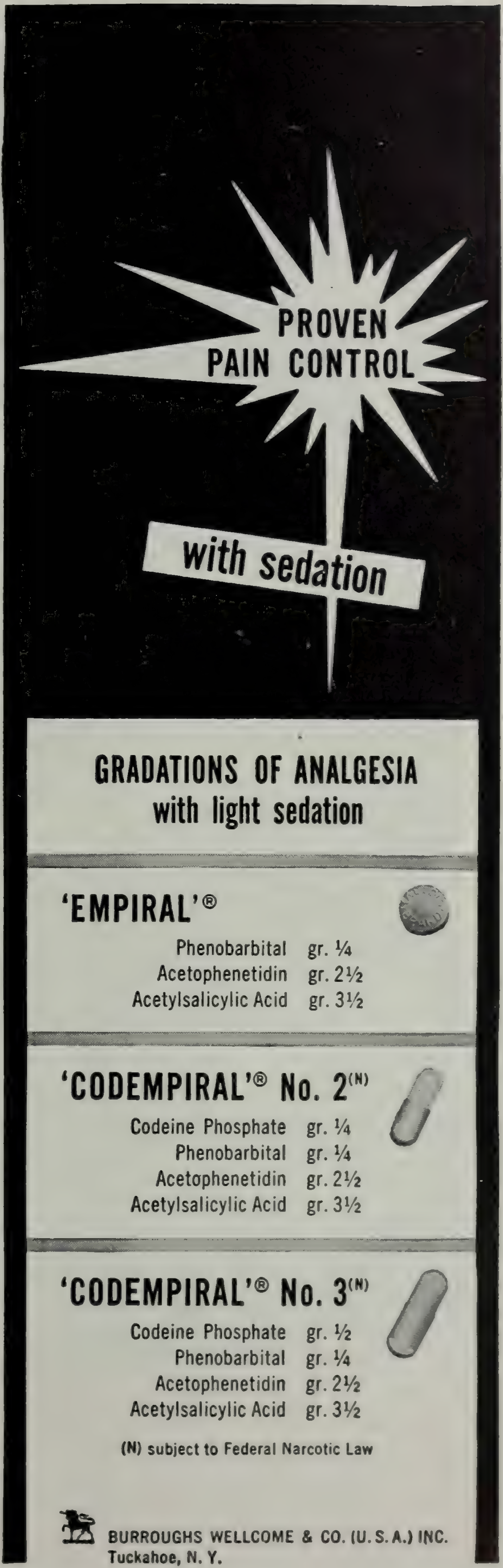
Electrolyte Replacement in the Surgical Patient, Morgan Stockwell, M.D., Kansas City.

Blood and Electrolyte Replacement in the Pediatric Surgical Patient, Daniel Darrow, M.D., Kansas City.

Plasminemia, Ray Parmley, M.D., Wichita, Kansas.

Afibrinogenemia, Lauren Moriaty, M.D., Kansas City.

The profession is invited. For luncheon tickets, please contact Milton H. Noltensmeyer, M.D., 2826 Main St., Kansas City, Mo.



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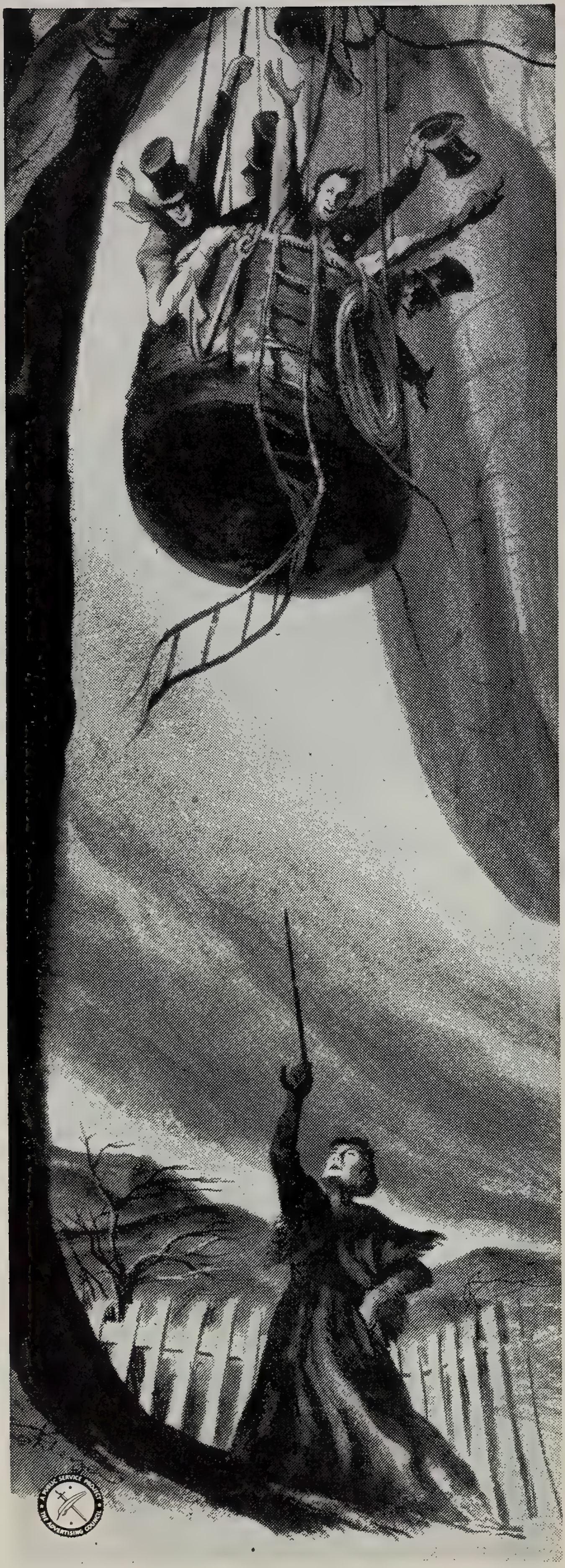

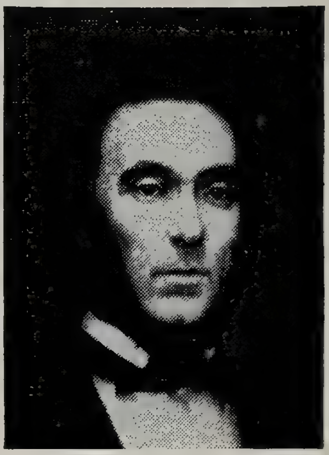

The old lady gave him what for

From AMERICAN HERITAGE

AN OLD LADY living near Henderson, N. Y. in 1859 was shocked at the way the four men had arrived—and said so. Such sensible-looking men in such an outlandish vehicle!

But John Wise and his crew, perched up in a tree, were far too happy to listen. Caught by a storm, their aerial balloon had almost plunged beneath the angry waves of Lake Ontario. Then, after bouncing ashore, they had crashed wildly through a mile of tree-tops before stopping in one.

Now, his poise regained, Wise stood up to proclaim: "Thus ends the greatest balloon voyage ever made." He had come 1200 miles from St. Louis in 19 hours, setting a record unbroken for 60 years.

He had also proved his long-held theory of an earth-circling, west-east air current—and that was far more important to him. For Wise was no carnival balloonist. He was a pioneer scientist of the air, a man whose inquiring mind and courageous spirit helped start the vast forward march of American aviation.

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Book Reviews

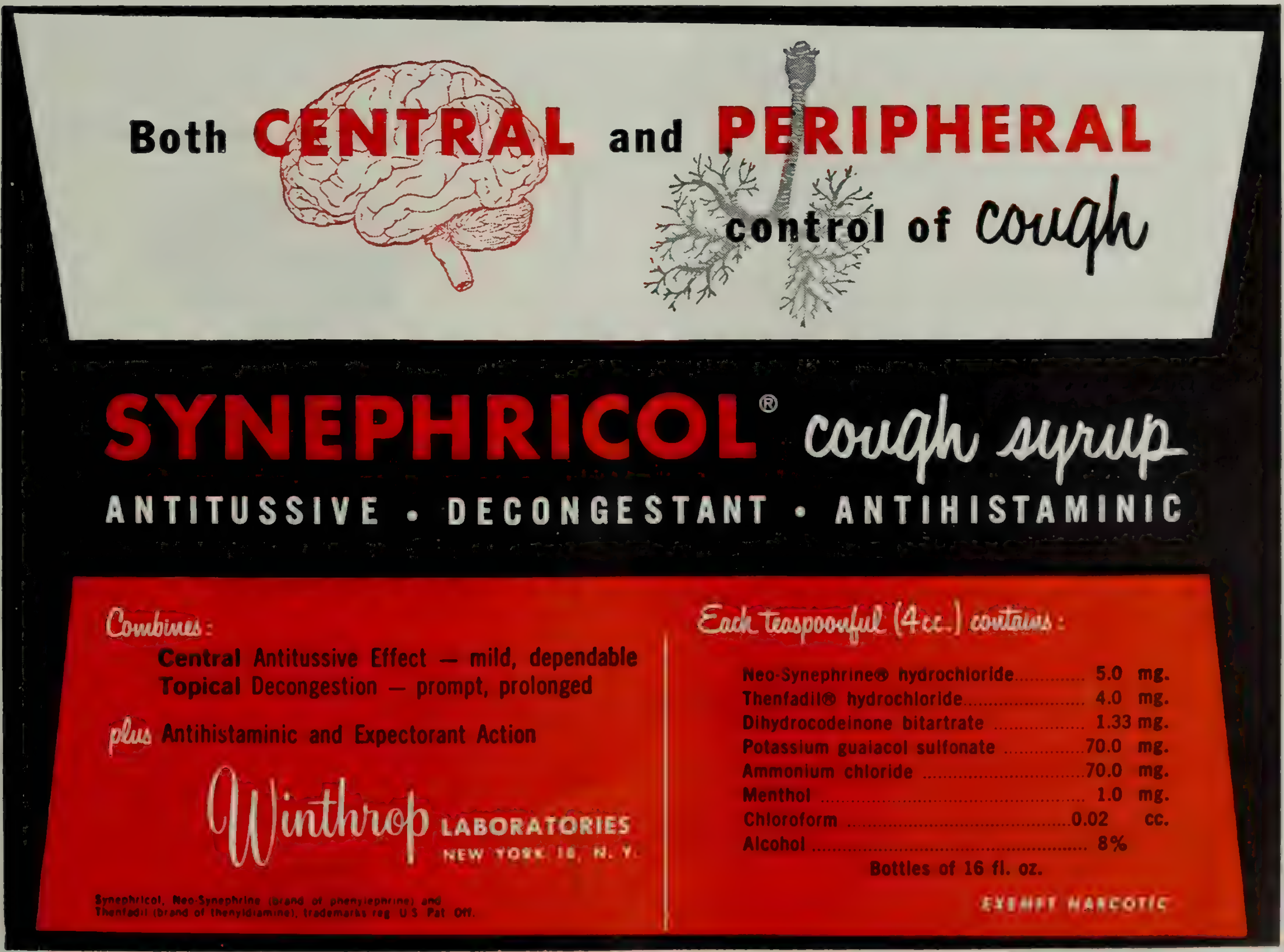
New Bases of Electrocardiography, by Demetrio Sodi-Pallares, M.D., Chief of the Department of Electrocardiography at the National Institute of Cardiology of Mexico; Professor of Cardiovascular Clinics at the National University of Mexico, Mexico City; with the collaboration of Royall M. Calder, M.D., Editor, English Translation, Clinical Professor of Medicine, Graduate School, Baylor University; Consultant, Brooke Army Medical Center; Electrocardiologist, Baptist Memorial Hospital; Physician and Cardiologist, San Antonio, Texas. With 520 Illustrations. St. Louis, The C. V. Mosby Company, 1956. Price $18.50.

The authors do not attempt to cover the subject of electrocardiography in its entirety. They avoid the arrhythmias completely. This book is an excellent summary of the fundamental investigations of electrocardiography carried out in the Mexican Institute of Cardiology under the direction of Sodi-Pallares. Certain aspects, primarily those personally investigated, are covered in great detail. Other aspects may appear to be covered less fully. Thus, the book may not appear to be as well balanced as other books on the subject. However, the authors are not attempting to write another book on clinical electrocardiography. They are interested in the electrophysiology of cardiac muscle and its practical application in the understanding of the electrocardiogram. It is stated in the preface that the book is limited intentionally to the personal viewpoints of the authors and to those mechanisms which they believe best explained the observed facts.

The first 134 pages are devoted to the general principles of electricity and electrophysiology and a discussion of the electrical action of the heart. There is also a special seventy page appendix on the various theories and mathematical formulae that form the bases of a scientific electrocardiography.

The authors then take up unipolar limb leads, injured muscle and the precordial leads in separate chapters. The subject of myocardial infarction is well presented. There is an exhaustive discussion of electrophysiologic principles producing characteristic electrocardiographic changes. This is followed by a summary of experimental explanation of changes seen. The illustrations are good. However, in discussing ventricular aneurysm there is little space devoted to it in comparison to the complete manner in which injury and infarction is covered. The authors mention the theory of mechanical trauma incident to pulling and stretching at the juncture of the scar with normal muscle. However, they fail to include Moyer's explanation that persistent RST segment elevation is due to hypertrophy of the opposite heart wall and the lack of modifying potentials from destroyed myocardium. I would have expected in a work of this type that the latter theory would also be discussed or criticized.

Subendocardial infarction was given less than one page. Its discussion was brief and the authors apparently accepted the classical description of QR waves as characteristic. This was disappointing since Sodi-Pallares stated in another section that he had con-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firmed Prinzmetal's new concept of activation of ventricular wall and that the inner one third of ventricle is electrocardiographically silent. Prinzmetal and other investigators have pointed out that pure subendocardial infarction does not affect the QRS complex and hence cannot produce QR waves. In a book of this type, I would have expected this subject to be given more detailed and modern treatment. I suspect that this section of the book was written earlier and not revised.

The subjects of left and right ventricular hypertrophy are done well and as part of the subject the authors cover congenital heart disease in a most unusual and complete fashion. They discuss congenital heart disease from a functional and hemodynamic viewpoint. They then discuss the individual types of congenital heart disease and the pattern one might anticipate in each type. I have not seen this subject covered so well in other treatises.

Of course, bundle branch block is covered exhaustively, both alone and in combination with infarction. There is an interesting discussion of false patterns in myocardial infarction, and anyone who must interpret electrocardiograms would profit by studying this section.

There are also complete chapters on activation processes of the human heart, vectrocardiography, ventricular gradient and intracavitary potentials.

I doubt if the general practitioner or the internist who has a casual acquaintance with electrocardiography would appreciate this book. But the serious student of cardiology and electrocardiography will welcome this book and find a wealth of material which will save him much valuable time in searching the literature. For this group it is highly recommended.

H. C. W.

Synopsis of Gynecology. Based on the Textbook *Diseases of Women* by Robert James Crossen, M.D., Associate Professor of Clinical Gynecology and Obstetrics, Washington University School of Medicine; Associate Gynecologist and Obstetrician to the Barnes Hospital and the St. Louis Maternity Hospital; Gynecologist to St. Luke's Hospital; Section Head of Unit 1 (Washington University) Obstetric and Gynecologic Service, St. Louis City Hospital. Fourth Edition. 132 Illustrations including Frontispiece in Color. St. Louis, The C. V. Mosby Company, 1956. Price $5.25.

This synopsis based on Crossen's *Diseases of Women,* is a handy reference book for the doctor who needs to refer to it occasionally about gynecologic problems. It is not intended to replace the larger textbook. This is the fourth edition of the original synopsis which first appeared in 1932. There are many practical suggestions for therapy, and it also includes an excellent discussion of the psychosomatic aspects of gynecologic problems. As in the original textbook the color plates and illustrations are excellent.

M. E. M.

Diseases of the Skin, by Richard L. Sutton, Jr., M.D., F.R.S. (Edin.) Chairman of the Department of Dermatology, University of Kansas Medical Center. Eleventh Edition With 1972 Illustrations. The C. V. Mosby Company, St. Louis, 1956. Price $29.50.

Sutton's "Diseases of the Skin" which first saw the light of day in 1916 is now in its 11th edition, with Sutton Jr. as chief production manager. As a great reference work, atlas and encyclopedia of skin diseases it has no equal in the world today. Few readers can appreciate the toil, concentration and exertion that must be expended to bring a work of this kind up-to-date. The author quotes Winston Churchill along these lines who said: "To begin with, it is first a toy and amusement. Then it becomes a mistress, than a master and then a tyrant."

Throughout its 1441 pages are numerous abstracts and comments by the author. For those who seek the original articles, the bibliography is handy to the test.

The book is a major contribution to dermatology and while the price may seem high, it is worth a place in every physician's library.

N. T.

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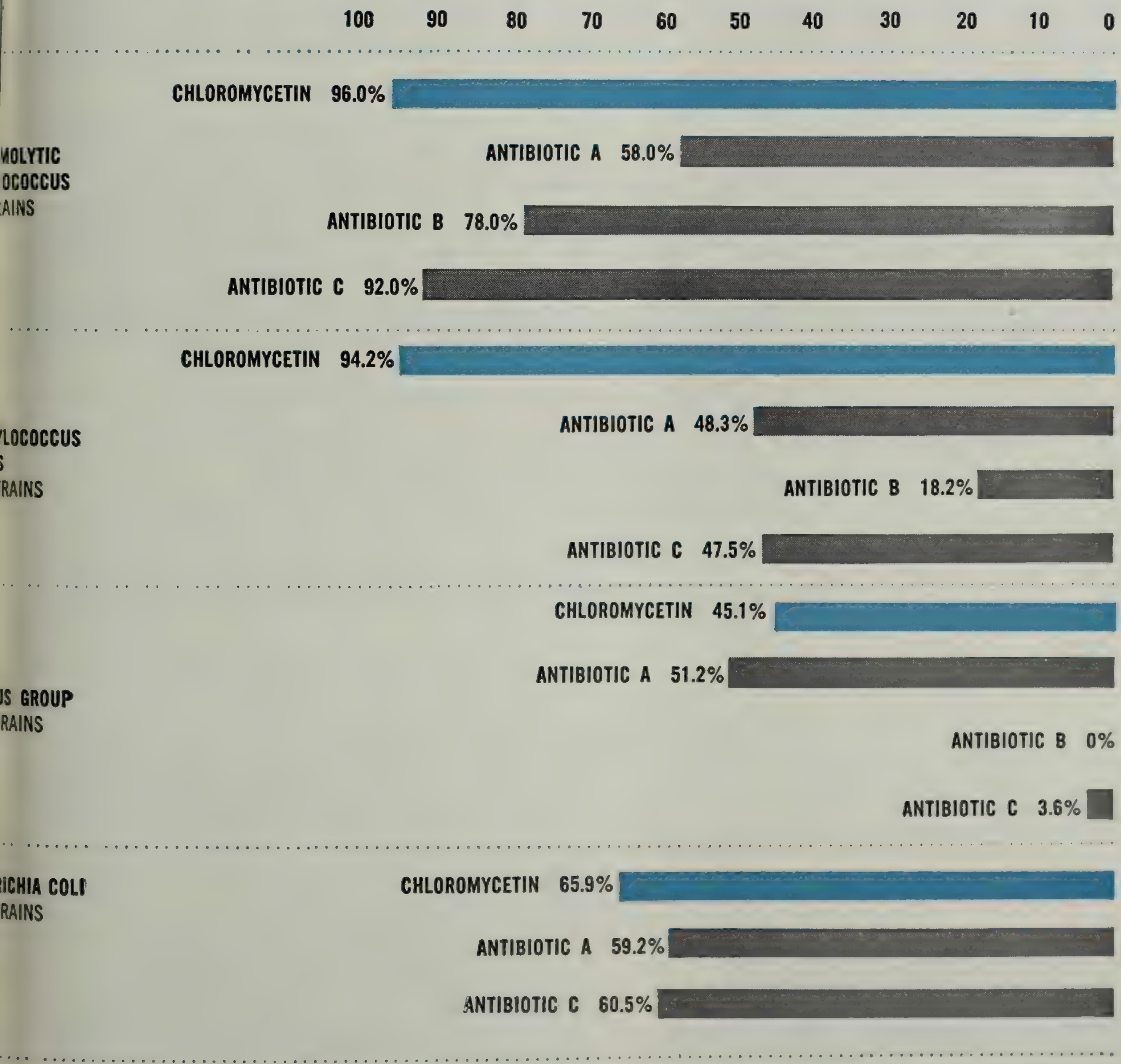

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50109

Missouri Medicine

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Curiosa et Trivia

WILLIAM B. McCUNNIFF, M.D.

Good news for toy-makers and pediatricians: within the ten years following World War II, our child population increased by more than a third. About fifty-five million Americans are under 18.

Chest examinations on physicians attending the A.M.A. 1956 meeting revealed that 83 per cent were normal, 6 per cent were suspected of tuberculosis and 4 per cent had cardiac findings. Another 6 per cent showed other pathology. At the same session 85 per cent of the physicians had normal EKG's, 10 per cent abnormal findings, and 5 per cent were considered borderline.

American neurologist, Silas Weir Mitchell, in addition to his medical writing, left fifteen novels, a play, poems and children's books. His first novel was written when he was 50, his last when he was in his eighties.

Bellevue Hospital costs about seventeen million dollars a year to operate. Other startling statistics about the hospital include the nearly one-half million meals served per month and the eighteen thousand bodies handled in the morgue per year.

Smallpox vaccination is considered to be risky in a patient under treatment with cortisone.

Capsule Clinics

I. A. WIEN, M.D.

- The presence of an ovarian neoplasm is an indication for laparotomy whether or not the tumor gives rise to symptoms, since about 15 per cent of them may be malignant. Te Linde, R. W.: Operative Gynecology, J. B. Lippincott Co., Philadelphia, 1946.
- Arterial insufficiency is characterized by: pain (intermittent claudication or rest pain), absent or diminished arterial pulsation, color changes dependent on posture, coldness and pallor of the skin, gangrene and ulceration. Allen, Edgar V., et al.: Peripheral Vascular Diseases, 2nd ed., W. B. Saunders Co., Philadelphia, 1955.
- Venous insufficiency is characterized by: swelling of the limb, prominent superficial veins, stasis dermitis, pigmentation and ulceration. Allen, E. V., et al.: Peripheral Vascular Diseases, 2nd ed., W. B. Saunders Co., Philadelphia, 1955.

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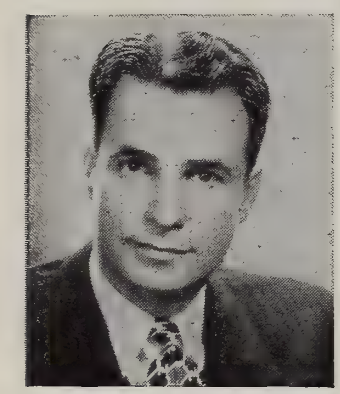
Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO



The arrangements for the Springfield session have been almost completed. The hotels and rates (all European Plan) are as follows: Colonial Hotel, rooms without bath, $1.00 to $1.50 for one person. Each additional person, $1.00. Rooms with bath, $2.00 to $3.00 for one person. A reasonable charge will be made for each additional person. Sansone Hotel, rooms $1.00 per day and up. Marquette Hotel, rooms (all with private bath) $1.00 per day and up. Rooms are available at the Y.M.C.A., Jefferson Hotel and the Keystone Hotel at 50 cents per day and up.

Dr. E. F. Yancey of Sedalia has been appointed a member of the Board of Regents of the Warrensburg Normal School.—Dr. John F. Chandler of Oregon has been appointed county physician of Holt County. He is also physician to the County Board of Health.—Dr. Alva Naylor of Plattsburg was killed the latter part of February when his automobile ran over an embankment and pinned the doctor underneath. Dr. Naylor's son was driving, but escaped without injury.—Dr. J. M. Bell of St. Joseph is home on furlough from the British army, where he has been serving in the medical corps for the past eighteen months. Dr. Bell has a captain's commission and saw service at the Dardanelles and in Egypt.—The second examination to be given by the National Board of Medical Examiners will be held in Washington, D. C., June 13, 1917. The examination will last about one week. The following states will recognize the certificate of the National Board: Colorado, Delaware, Idaho, Iowa, Kentucky, Maryland, North Carolina, New Hampshire, North Dakota and Pennsylvania. Favorable legislation is now pending in twelve of the remaining states. The certificate of the national board will be accepted as qualification for admittance into the Graduate School of the University of Minnesota, including the Mayo Foundation. Application blanks and further information may be obtained from the secretary, Dr. J. S. Rodman, 2106 Walnut Street, Philadelphia.

The Gasconade-Maries-Osage County Medical Society met in Dr. C. A. Bunge's office on Thursday afternoon, March 15, 1917. The following members were present: Drs. C. T. Leach, M. E. Spurgeon, John J. Ferrell, S. E. Gaston, C. A. Bunge and John D. Seba. The following visitors were present: Dr. G. A. Nieweg, Vancleve; Dr. R. M. Funkhouser, Dr. H. E. Kleinschmidt and Dr. Edgar F. Schmitz, St. Louis. After this a social supper was then taken in the Blank Hotel. After supper the society met in open session in the opera house for a public health meeting. Owing to a heavy rainfall during the evening, the audience in the opera house was rather small, but those present enjoyed the public health lectures very much.

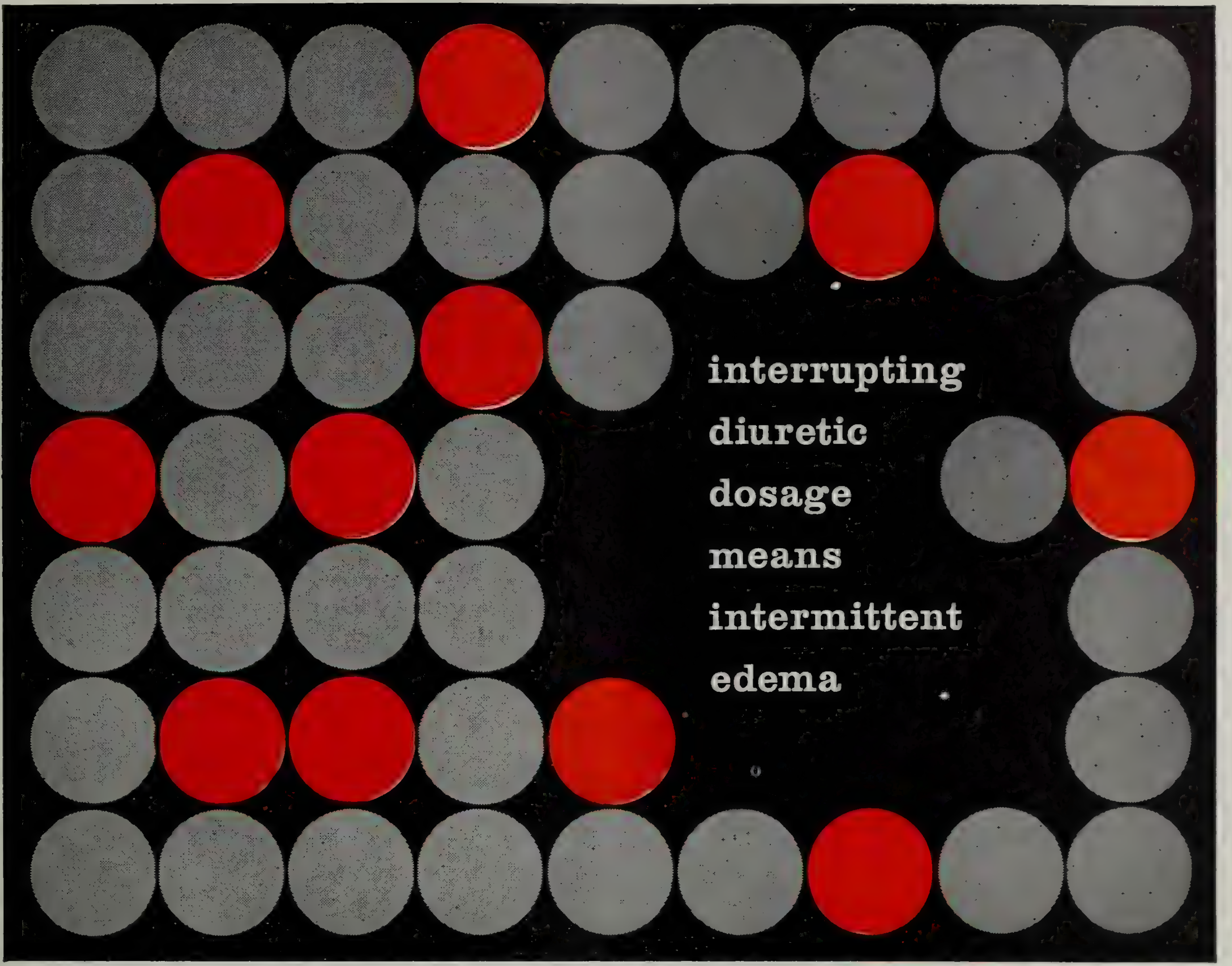
The Platte County Medical Society met at Platte City, Wednesday afternoon, February 9, at 1:30 p.m. The following members were present: L. C. Calvery, S. L. Durham, H. M. Clark, M. H. Moore, J. M. Hale, E. R. Hull, Alva Naylor and Spence Redman. After the usual preliminary business Dr. Durham read an exceedingly interesting and unusually practical paper on "Abortion," laying special stress on the etiology and treatment. He also dwelt at some length on the increase in the number of cases of criminal abortion, without, however, offering an effective remedy therefor. The discussion on the doctor's paper was so intense and protracted that the remainder of the scientific program was dispensed with.

TWENTY-FIVE YEARS AGO

An instance of well-guided philanthropy is that of Julius Rosenwald who provided that the immense wealth of the Rosenwald Philanthropic Foundation be expended, principal and interest, within twenty-five years from the date of his death. It was Mr. Rosenwald's opinion that men in one generation could not foresee and plan for the needs of a succeeding generation. Philanthropists who desire to build and endow hospitals have thus far limited their bequests to the brick, mortar and stone for the construction of the hospital and sometimes for its maintenance. To our knowledge there is not a known instance of a philanthropist endowing the physicians on the staff of charity hospitals, without whom the institution would be nothing but a pile of brick, mortar and stone. Physicians are generous of their time and even their money to serve the poor and doubtless will continue to give this service free to the deserving needy. It is, however, becoming a question of considerable discussion as to whether the state or the municipality has the right to expect the service of physicians in caring for the sick wards of the community without some remuneration. It is here that well-guided philanthropy could serve the real welfare of the community by providing money to pay the physicians on the staffs of state, municipal and county hospitals. (Editorial.)

Dr. Malvern B. Clopton, St. Louis, was elected president of the corporation of Washington Uni-

(Continued on page 386)



PATIENTS IN FAILURE NEED AN ORGANOMERCURIAL

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The organomercurials never require interruption of dosage to prevent refractoriness and can maintain patients continuously in the edema-free state.

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Blue Shield Payments to Physicians

In the last two years, the two Blue Shield Plans in Missouri have paid physicians almost $15,000,000 for services rendered to members. A report recently compiled by the Plans for the period January 1, 1955, through December 31, 1956, shows that St. Louis Blue Shield paid out $8,211,364 in medical-surgical benefits, while the Kansas City Plan paid allowances amounting to $6,740,264. This is an average of almost $623,000 a month.

The list of benefit payments by counties for the two year period shows:

Kansas City Blue Shield Plan

Andrew	$ 9,560.50
Atchison	32,797.00
Bates	48,222.00
Benton	570.00
Buchanan	505,959.78
Caldwell	2,946.00
Carroll	32,037.37
Cass	50,179.25
Clay	302,123.25
Clinton	27,668.25
Daviess	1,745.00
DeKalb	563.50
Gentry	984.50
Grundy	14,563.50
Harrison	14,057.75
Henry	42,264.00
Holt	8,894.00
Jackson	5,216,955.25
Johnson	65,569.25
Lafayette	110,591.50
Livingston	13,441.25
Mercer	7,655.50
Nodaway	22,811.75
Pettis	31,795.25
Platte	6,224.25
Ray	30,526.00
Saline	63,447.55
St. Clair	35,177.37
Vernon	39,806.00
Worth	1,128.00

St. Louis Blue Shield Plan

Adair	8,202.00
Audrain	29,105.00
Barry	10,512.00
Barton	23,404.00
Bollinger	7,649.00
Boone	48,405.00
Butler	208,646.00
Callaway	25,490.00
Camden	2,776.00
Cape Girardeau	91,042.00
Carter	1,659.00
Cedar	3,205.00
Chariton	954.00
Christian	11,026.00
Clark	1,686.00
Cole	66,044.00
Cooper	35,823.00
Crawford	3,654.00
Dade	1,221.00
Dallas	912.00
Dent	4,627.00
Douglas	2,395.00
Dunklin	58,493.00
Franklin	63,098.00
Gasconade	10,312.00
Greene	343,568.00
Hickory	2,331.00
Howard	18,777.00
Howell	16,833.00
Iron	26,363.00
Jasper	341,646.00
Jefferson	17,489.00
Knox	89.00
Laclede	49,827.00
Lawrence	7,301.00
Lewis	5,417.00
Lincoln	12,151.00
Linn	158.00
McDonald	9,353.00
Macon	2,164.00
Madison	13,234.00
Maries	4,407.00
Marion	168,796.00
Miller	2,418.00
Mississippi	42,739.00
Moniteau	8,279.00
Monroe	2,135.00
Montgomery	1,942.00
Morgan	1,585.00
New Madrid	29,966.00
Newton	30,046.00
Oregon	222.00
Osage	5,813.00
Ozark	281.00
Pemiscot	42,762.00
Perry	19,673.00
Phelps	41,166.00
Pike	30,933.00
Polk	3,735.00
Pulaski	3,150.00
Putnam	504.00
Ralls	24,826.00
Randolph	13,707.00
Reynolds	468.00
Ripley	9,500.00
St. Louis and St. Louis County	5,789,251.00
St. Charles	28,352.00
St. Francois	88,132.00
Ste. Genevieve	11,770.00
Schuyler	0.00
Scotland	93.00
Scott	75,052.00

(Continued on page 318)

relieves the discomfort of colds

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'EMPIRIN' COMPOUND®

with CODEINE PHOSPHATE

shortens the "miserable" period by:

- Reducing fever
- Controlling cough
- Relieving headache
- Relieving muscular aches and pains

prompt symptomatic relief of colds with ***minimum addiction liability***

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No. 1	**No. 2**	**No. 3**	**No. 4**

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

Consonant with the policy and principles of the American Academy of General Practice, the Missouri Academy has been compelled to drop from its membership seven active members during the last year for failure to comply with its postgraduate study requirements. Such action is always taken reluctantly and regretfully. But to maintain standards and to sustain a major objective of the Academy, the Board of Directors has no alternative. It is hoped that many ambiguous and contentious aspects of Category I requirements will soon be eliminated by action of the House of Delegates and by the Commission on Education. Many members think they deserve Category I credit for courses and programs which remain in Category II. At present only the following receive Category I credit:

1. Any postgraduate course given by an accredited medical school or recognized postgraduate medical school.
2. Any course sponsored by the AAGP or by any of its constituent state or territorial chapters or by a medical school administrator, approved in advance by the regional advisor of the Commission on Education, and processed by the AAGP or its constituent state or territorial chapter.
3. The Annual Scientific Assembly of the AAGP.
4. The Annual Scientific Assembly of each state chapter providing it be approved in advance by the regional advisor of the Commission on Education.
5. The publication of a scientific paper by a member in a state or national medical journal, or the presentation of any original scientific paper to a medical audience at the county level or above, or the preparation and presentation of a scientific exhibit at a medical meeting at the state level or above shall receive ten hours credit. Scheduled teaching of medical students through a medical school shall receive credit for each hour of actual teaching.

Definition of Sponsorship: Sponsorship by the American Academy of General Practice or any of its constituent state or territorial chapters shall be defined as taking an ACTIVE part and having an AAGP member on the program committee of the course being offered. This committee member must be one who is on the AAGP national, regional, territorial, state or local chapter program committee or education committee. It must include active participation in and planning of the course offered. AAGP sponsorship is not to be confused with mere endorsement or approval of the quality of the course being given.

Excess hours accrued under Category I may be applied to Category II.

Members of MAGP seeking sponsorship for Category I credit must, as outlined, send a full description of the program to the Chairman of the MAGP Education Committee, Wyeth Hamlin, M.D., Palmyra, Missouri. All sources and programs must have the approval of the education committee to be acceptable as Category I credit.

While regretting the loss of seven members failing to comply with postgraduate study requirements, we are happy to welcome the following new members: Raymond J. Caffrey, M.D., Grandview; William B. Rost, M.D., St. Joseph; Jack T. Steele, M.D., Ferguson; Donald E. Beckman, M.D., Clarksville; John G. Kellett, M.D., Lemay; Douglas C. Ronald, M.D., Butler; James A. Reid, M.D., Marshall; Albert P. Nibbe, Bethany; Gladys P. Sutherland, M.D., Bethany.

At a Board of Directors meeting of the Missouri Academy of General Practice held February 3, 1957, Dr. Eugene Henschel, Chairman of the Insurance Committee, presented an insurance form approved by the Council on Insurance. It was voted that these forms be sent to every member of MAGP along with the recommendation that these forms be used in reporting accident cases. Since this simplified form is recommended by 85 per cent of insurance carriers underwriting health and accident insurance in the United States, all physicians are urged to use it rather than many of the ridiculously long and involved forms still submitted by some companies. By using this simplified form we can all contribute to the reduction of clerical work, a growing problem in every doctor's office—and one often involving more of the physician's time than actual care of the patient.

A new member of the Board of Directors of MAGP is Dr. George V. Feist, 702 Professional Building, Kansas City. Dr. Feist was appointed to fill the place of Dr. Marcus Bond whose resignation was regretfully accepted by the Board.

Blue Shield

(Continued from page 316)

Shannon	1,615.00
Shelby	3,093.00
Stoddard	70,301.00
Stone	2,004.00
Sullivan	374.00
Taney	11,744.00
Texas	9,856.00
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Washington	5,140.00
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Webster	5,000.00
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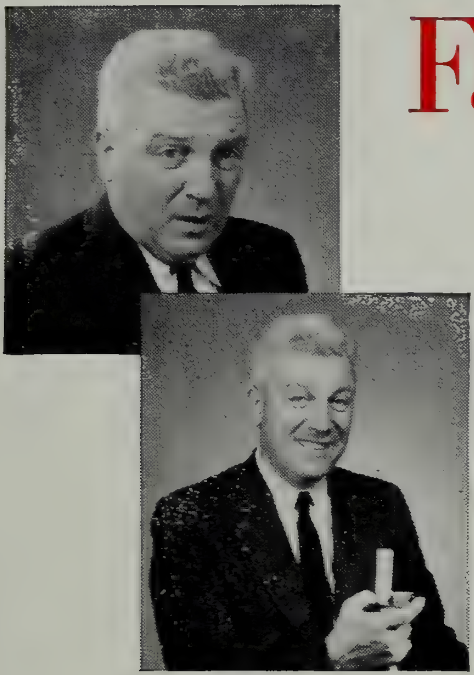
For the Asthmatic



Fast Relief

Medihaler offers virtually instantaneous relief and does so with little effort and with maximum safety.

Measured-Dose True Nebulization

Delivers a measured dose of true nebular vapor...Dose is always the same regardless of strength of fingers or amount of medication in bottle.

Costs the Patient Less

Medihaler Oral Adapter is made of unbreakable plastic ...no moving parts...and 200 applications in each 10 cc. bottle.

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Medihaler-Epi®

Riker brand of epinephrine U.S.P. 0.5% solution in inert, nontoxic aerosol vehicle. Each ejection delivers 0.125 mg. epinephrine. In 10 cc. vial with metered-dose valve.

Indicated in acute or recurring bronchospasm. Replaces injected epinephrine in many emergency situations.

Medihaler-Iso®

Riker brand of isoproterenol HCl 0.25% solution in inert, nontoxic aerosol vehicle. Each ejection delivers 0.06 mg. isoproterenol. In 10 cc. vial with metered-dose valve. • Indicated in acute or recurring bronchospasm.

Note: *First prescription should include desired medication and Medihaler Oral Adapter, supplied with pocket-sized plastic container.*

The Medihaler principle

is also available in Medihaler-Nitro™ (octyl nitrite) for the rapid relief of angina pectoris...and Medihaler-Phen™ (phenylephrine-hydrocortisone-neomycin) for lasting, effective relief of nasal congestion.

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Woman's Auxiliary

Mrs. Charles (Susan) Shepherd, *President*

The year has passed swiftly and it is time to give an accounting of my stewardship.

The generous space given to the Auxiliary in Missouri Medicine has been appreciated. We were encouraged to write more than our alloted one half page and have been grateful for the opportunity to tell the Auxiliary story in more detail.

It has been one of my personal objectives to help create a better understanding of the work of the Auxiliary by more members of the medical profession, because we feel too many look upon it as just another "club" to be tolerated but not encouraged. It is a rather sad commentary that the wives of many of the doctors that have held appointments and were in positions of influence on the state level as well as on the county level, have not given support to the Auxiliary. Lest I bring the roof in on my head, let me hasten to add that we are aware of some reasonable excuses for this, but the dedicated women who have carried on the work through the years do not consider "not enough time" as anything but the lame excuse it is.

In this issue are some additional highlights of work carried on in some of our counties. All reports have not come in in time to be added to this report but the work done throughout Missouri by Auxiliary members, under direction and with a purpose, creates the type of public relations for the medical profession that could not be bought.

I cannot evaluate my own contribution to the success of overall program except by my complete and absolute belief in the value of the work that can be done by the wives of doctors in our communities and hope that a small part of it has rubbed off wherever I went.

I have traveled well over 8,000 miles. I have visited and talked (for hours) to twenty-three auxiliaries in Missouri; I have attended the A.M.A. Convention, attended the National Conference of A.M.A. Auxiliary in Chicago. I secured speakers for and set up the agenda for Fall Board Meeting for our state in Columbia last September. I have spoken to the DAMES Club of St. Louis University; attended three meetings of the Missouri Council on Health Careers; belong to T.B. Society board; have spoken to a Future Nurses Club at Hazelwood High School and helped set up a G.E.M.S. program there; represented the State Auxiliary at a five state conference on Civil Defense; went to Washington, D. C., to represent Missouri at the Southern Medical Auxiliary meeting and serve on that board. I have written fourteen articles for Missouri Medicine, seven articles for *The Quarterly Bulletin* and two for the *National Bulletin*; compiled and wrote the "President's Guide" which I feel has been the most helpful one item the Auxiliary has ever had.

As the Auxiliary works on a limited budget, my allowance of $300 expense money for the year covers only a small part of the obligations of a president and I am sure I speak for most of those that have preceded me with this same problem. At that I consider the experience and opportunity for service to be priceless and I have felt highly honored to have had the opportunity to serve as the President of the Woman's Auxiliary of your medical profession.

"Hi-lites" of County Auxiliary Activities

(Not all counties reporting at date of printing)

District 1. Mrs. Thompson Potter, Director

Clay County: Mrs. M. W. Chastain, President, 41 members. Jointly sponsored an educational meeting for lay public and medical society at which Governor Blair and Walter Sewell, M.D., spoke. Attended by 100 guests and 100 doctors and wives.

Netted $82.00 from "Quiet Evening at Home" for A.M.E.F. General Thrasher, head of Civil Defense in the Kansas City area, was speaker at one meeting. A First Aid, Home Nursing class was held for members and friends. One member teaches these classes.

The psychologist with Clay County Health Unit presented a program on Mental Health at one meeting. A speaker was provided for two PTA programs in Smithville pre-school and high school.

A film and speaker (Chief of K.C. Fire Dept.) gave one program on fire protection.

Five Nursing scholarships given. A Future Nurses club has been in operation for several years in North Kansas City and the Auxiliary organized one in Smithville this year. The film "Career-Medical Technologist" was shown in two schools.

The G.E.M.S. program used in Future Nurses Club and a new group forming at Community Y, with Auxiliary member directing the course.

Members act as hostess to wives of doctors attending the Annual Clinical Conference in Excelsior Springs.

Grand River: Mrs. John Dixon, President, 28 members. A health legislation talk given by Donald Dowell, M.D., at joint meeting with medical society.

Two radio series presented over KGHM in Chillicothe, "Menu for Health" and "Superstition or

(Continued on page 322)

designed to **control anxiety**
in Arthritis, Asthma, Allergic Dermatoses

with **lower corticoid dosage**

the original tranquilizer-corticoid

Ataraxoid*

prednisolone and hydroxyzine

provides the emotional tranquilizer, ATARAX® (hydroxyzine) and the preferred corticoid, STERANE® (prednisolone) • control of emotional factors by tranquilization enhances response to the corticoid for greater clinical improvement • often permits substantial reductions in corticoid dosage, accompanied by reduction of hormonal side effects • confirmed by marked success in 95% of 1095 cases of varied corticoid indications[1]

ATARAXOID *now written as* **Ataraxoid 5.0**

5 mg. prednisolone, 10 mg. hydroxyzine hydrochloride, in green, scored tablets. Bottles of 30 and 100.

and now available as **NEW** **Ataraxoid 2.5**

2.5 mg. prednisolone, 10 mg. hydroxyzine hydrochloride, in blue, scored tablets. Bottles of 30 and 100.

and **NEW** **Ataraxoid 1.0**

1.0 mg. prednisolone, 10 mg. hydroxyzine hydrochloride, in orchid, scored tablets. Bottles of 100.

formerly **Ataraxoid**
NOW written **Ataraxoid 5.0**

advantages: (1) greater flexibility of dosage (2) effective tranquilization permits lower corticoid dosage

[1] Personal communications

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Woman's Auxiliary

(Continued from page 320)

Science." These are furnished by A.M.A. Health Education Bureau.

Robert Marshall, C.D. director from Carrollton, was guest speaker for one meeting.

Members heard mental health speaker from St. Joseph and later furnished a speaker for Federated club in Marceline. Topic "Alcoholism."

A film on "Nursing Careers" was shown at Marceline High School.

The amount of $25.00 contributed to A.M.E.F. with proceeds from a White Elephant sale to be added to this.

Nodaway-Atchison-Gentry-Worth: Mrs. Wallace Carpenter, President. All day, open house, health film festival held in Maryville, showing three of the latest films on Safety, Health Careers and Mental Health. High schools, Extension clubs and local church and civic clubs were invited. Cokes and coffee served after each show. The same films were shown in high schools of Tarkio and Rockport.

G.E.M.S. program and "Milestones to Marriage" letters placed in Tarkio and Rockport and ordered for other schools in the four counties.

3rd District. Mrs. A. B. Jones, Director

St. Louis (City): Mrs. H. H. Feller, President, 319 members. Two outstanding meetings held for lay public. One with over 300 guests featured Leo Brown, Public Relations Director of A.M.A.; the other, Alex H. Kaplan, M.D., speaking on "Emotional Problems in Children."

Lenore Sullivan and Thomas Curtis, members of the 85th Congress, were guest speakers at a regular meeting of the Auxiliary. Mrs. Feller, president, received an invitation and attended President Eisenhower's inauguration as a result of her work in Republican politics in the St. Louis area.

To date around $250.00 has been collected from "Quiet Evening at Home" for the A.M.E.F.

An annual garden card party netted over $1,000.00 for the Nursing Scholarship fund. A contribution has been made to Hungarian Doctors' Relief.

A medical benevolent relief fund is maintained for past or present worthy physicians, their wives or widows, belonging to St. Louis Medical Society.

Members participated in a drive to immunize every one from one to forty with the polio vaccine.

Members served during month of Mid-America Jubilee, giving out literature and acting as hostess to medical exhibits.

4th District. Mrs. R. W. Stuebner, Director

Franklin-Warren-Gasconade: Mrs. Hubert Denny, President, 22 members. Excellent public relations enjoyed by annual meeting for lay public. This year a Tea and talk by Dr. Henry Guhleman, of Jefferson City. "The Problem Child" was his subject. Mrs. Richard Sutter of St. Louis County spoke on "Careers Recruitment."

"The Best Is Yet to Be" electrically transcribed radio series from A.M.A. currently running over radio station.

Dr. Thomas Thale, of St. Louis, spoke to Auxiliary about Mobile Mental Clinic and members helped plan clinic in Washington. Program was provided for Warrenton PTA on mental health.

A nurse recruitment and health careers film was shown by a member at Hermann PTA to both grade and high school.

Gift wrapped toys to pediatric ward and canned goods to poor were given through hospital in Washington.

A contribution of $22.00 was given to A.M.E.F.

Jefferson County: Mrs. Hart Donnell, President, 10 members (4 new this year). These women provide a luncheon with favors at each plate for over 100 guests annually for Public Relations Day. This year's topic will be on Safety.

A radio series is being used over KJCF from A.M.A.

One member organized courses for instructors and courses for other women in Civil Defense. Every member has survival preparations in her home. Arrangements made for Mr. Kline, Asst. Dir. C.D. St. Louis County to speak to Festus PTA.

One member on Mental Health committee for Jefferson County clinic. Speakers provided for Festus PTA and Crystal City PTA. Also speakers provided for these schools on Safety.

Arrangements made, transportation and entertainment furnished a nurse, to speak at the four county high schools on health careers.

Each member has had a complete physical checkup this year.

The sum of $10.00 was contributed to A.M.E.F.

St. Louis County: Mrs. Wm. Grundmann, President, 170 members, 14 meetings held. Annual "Health Day" this year featured three films followed by three speakers on "Cancer," "Safety" and "Obesity," from American Cancer Society, Safety Council and Dairy Council. Members furnished and served lunch to around 160 guests.

"Quiet Evening at Home" netted $183.00 to date for A.M.E.F.

Auxiliary sponsored First Aid and Survival Course for members and friends. Twenty-six finished the course.

A joint meeting held with doctors to hear Dr. M. Glassburg discuss "Marriage Counseling." Two sets of "Milestones to Marriage" placed in county high schools and a panel discussion program on mental health scheduled.

A benefit card party provided enough money for a Nurse Scholarship. Auxiliary assists two Future Nurses Clubs and has set up G.E.M.S. (good emergency mothers substitutes—trained baby sitters) program in these clubs. One member

(Continued on page 325)

Woman's Auxiliary

(Continued from page 322)

set up Career Recruitment through Social Planning Council.

Members man the T.B. Society x-ray when it comes to Clayton (seventy-one hour total).

Articles of clothing and toilet articles furnished to Mental Hospital. Ninety pairs of hand sewn scuffs and $28.00 cash were given to St. Louis County Hospital.

Members served in Medical Booth at Mid-America Jubilee.

Members feed the doctors after each meeting.

5th District. Mrs. E. A. Kibbe, Director

Audrain County: Mrs. Harry F. O'Brien, President, 12 members. Won first and third prize during Audrain County Fair on booths "Opportunities in Nursing" and "Join the Future Nurses Club." Members sponsor a Future Nurses Club and show films and give talks to local schools on Career Day.

Literature given out on Civil Defense and one member teaching a class of Practical Nurses.

Safety program reviewed.

A.M.E.F. contribution was $42.00. Of this $30.00 was given "In Memoriam."

Christmas party given for Cerebral Palsy school.

Boone County: Mrs. Wm. Sodeman, President, 48 members. Acted as hostess for State Auxiliary Fall Board meeting.

Dr. H. M. Hardwicke, Asst. Dir. of C.D. of Missouri spoke to a representative number of local organizations with fifty-five attending. Much constructive educational work done by Auxiliary.

The amount of $10.00 sent to A.M.E.F.

By the sale of jewelry made by members and used clothing $278.14 was netted and this is used to finance a nurse in training.

A film will be shown over KOMU-TV during mental health week. One Auxiliary program featured Dr. E. C. Chiasson, practicing psychiatrist.

Health Careers Chairman to take part in schools on Career Day.

Benevolent project was supplies to white nursery school, sheets and wash cloths plus food and books to U.S.O.

Cole County: Mrs. Landon Gurnee, President, 44 members. Public Relations Tea to guests from forty-five local clubs presented Dr. A. K. Baur, speaking on conditions at Fulton Mental Hospital.

Radio program "Superstition vs. Science" began in March to be followed by a "Rural" series.

Sent to A.M.E.F. $30.00.

A benefit card party netted $150.00 for starting a Nurse Loan Fund. Local students given a program on health careers and taken on guided tour through local hospital and served refreshments. New recruitment film shown in Junior College.

Twenty-two members have had complete physical check-ups and emphasis to get "Family Doctor for Every Doctor's Family."

Eight members have taken Home Nursing course and one taught a course. A speaker and film furnished to Council of Clubs. Members have stockpiled food and supplies.

Party given for patients at Old Peoples Home at Christmas with gifts and refreshments and a Memorial contribution made by members to new hospital.

6th District. Mrs. A. J. Campbell, Director

Johnson County: Mrs. C. M. Lederer, President, 9 members. Supplied speaker on Sex Education to local PTA, speaker in Mental Health for Centerview PTA, and speaker on Safety with film for Southeast PTA.

Members received and studied literature on C.D.

Funds have been raised to finance a local girl in Nursing School. Each year a Coke party and recruitment program is given to local high school.

Sales of *Today's Health*, 650 per cent.

"King for a Day" theme used in celebrating Doctors Day.

Benevolent work included sending fruit to County Home.

Pettis County: Mrs. D. R. Edwards, President, 32 members. Two educational meetings for lay public to be held, one on Safety with film and speaker from Missouri Highway Patrol. The other during Mental Health week.

Two transcribed radio programs given. "Interlude" currently playing over KDRO.

"Your Doctor" film followed by panel of three general practitioners discussing medical school training given over local TV station; a second one using Dean Roscoe Pullen with film on new medical school in Columbia and a third one to go on air in May.

"Evening at Home" netted $64.00 for A.M.E.F.

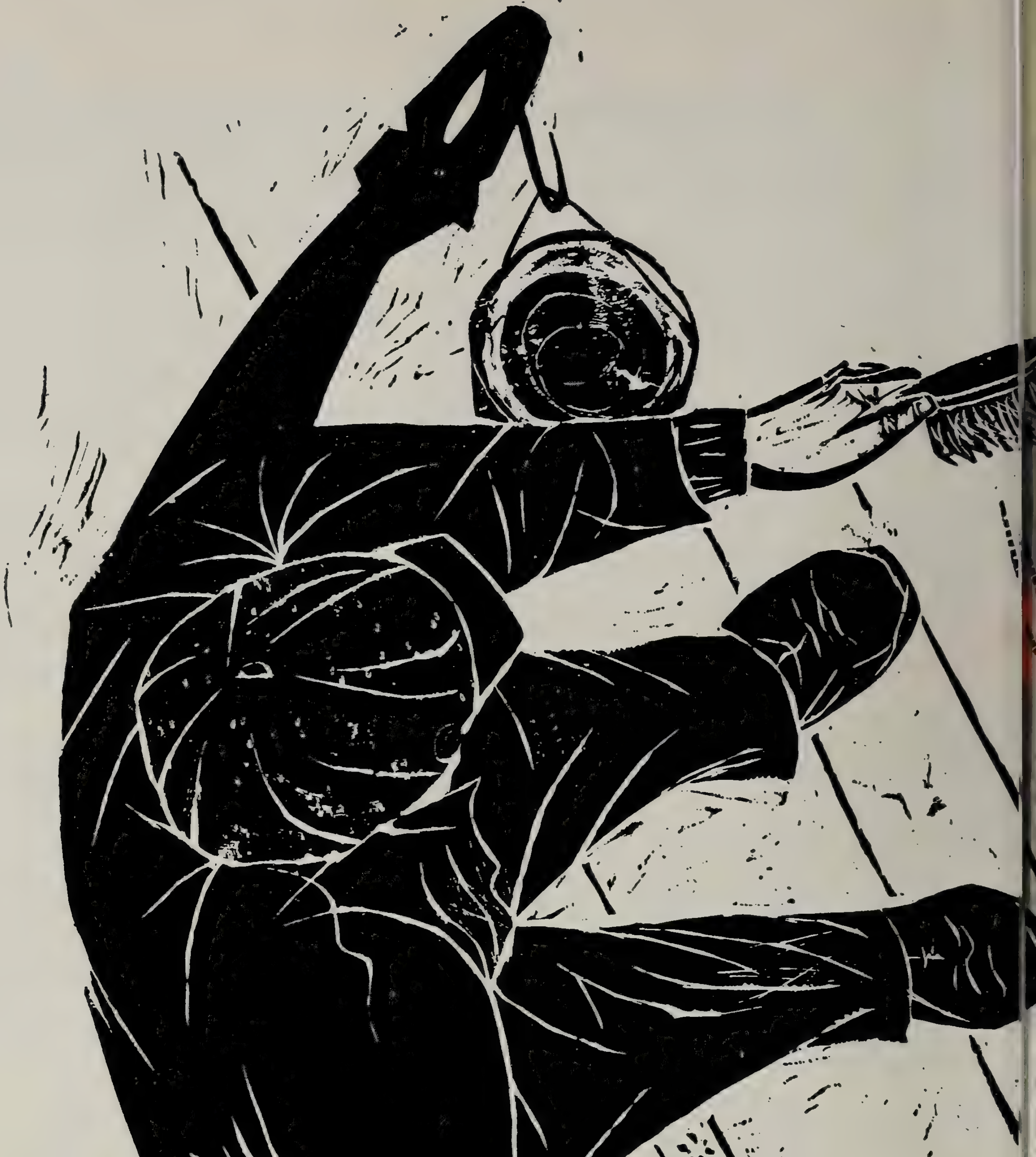
A program on "What Part Can Doctors' Wives Play in C.D.?" given by member who organized course in Home Nursing. This was followed by Survival Course.

Pamphlets on "What Can I Do to Make My Community Safe?" "Driver's Ten Commandments" distributed to members. One thousand copies of "Congratulations" distributed by hospitals to all new mothers in community and 500 copies of "Truly Yours" pamphlet from National Safety Council given to parents of pre-school and kindergarten children.

In cooperation with Kiwanis Club, and R.N. Assn. Auxiliary to participate in Career Day, by showing film "Career-Medical Technologist." Lab equipment, with technician, doctor and member who is nurse to be on program. A Nurse Scholarship loan has been set up by voluntary contribution from members. Members work at Careers booth at State Fair.

Cookies and a bed jacket furnished to two patients at hospital and $15.00 cash sent to Crippled Children's Center. A contribution to Crusade for Freedom and Radio Free Europe to be made.

(Continued on page 330)



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Woman's Auxiliary

(Continued from page 325)

Eighteen members have had complete physical checkups this year.

Annual $32.00 given to Cancer Fund.

Members serve cookies and punch to visitors on Hospital Day.

7th District. Mrs. R. L. Morrow, Director

Jackson County: Mrs. Mark M. Marks, President, 536 members (7 military, 9 unpaid, 7 resigned). This represents 48 new members this year. Attendance at meetings has been phenomenal, around 150 each meeting.

Each meeting dedicated to some educational phase of National theme, "Health Is Our Greatest Heritage."

A Public Relations speaker told of "The role of the Doctor's Wife in the Community." At this same meeting the Civil Defense committee presented a film and commentator and distributed literature. Other meetings featured such thing as: A skit reviewing material from *Today's Health*, a Mental Health speaker from the community; Dr. Victor Buhler spoke on Health Legislation; a financial expert spoke on implications of the Jenkins-Keogh Bill and distributed an outline of the bill; a speaker from the recently formed Regional Health and Welfare Council telling of existing facilities and future needs.

Many of Auxiliary projects are carried on in the larger cities by organizations set up specifically for one purpose such as Civil Defense and Safety however auxiliaries can and do cooperate with these groups and use their resources to spread general health information not only to own members but to other organizations.

The medical society has a weekly radio program but Auxiliary did arrange one series of electrically transcribed programs on "Bringing Up a Child" over KIMO radio station.

"Evening at Home" results not all in as this is written but reported well over quota of $1.00 per member plus an additional $75.00 sent in through "In Memoriam" cards. A.M.E.F. committee sent speakers before hospital auxiliaries and have had excellent newspaper coverage.

The Careers Recruitment committee have worked extensively in setting up Future Nurses Clubs and the Auxiliary has given pins to all clubs.

The Nurses Loan Fund has made loans amounting to $1,765.00 this year. Money to finance this comes from a series of Bridge-Mixers which not only net money but is valuable in fostering friendliness among members. Nine nurses have been able to enter training this year because of this.

Jackson County will act as hostess for the State Convention. There are around 150 members actively making preparation for this event, each with specific tasks to do. Mrs. W. Allen and Mrs. W. Hickerson are in charge.

8th District. Mrs. Stanley Peterson, Director

Greene County: Mrs. D. Anthony, Jr., President, 103 members. Emphasis was placed locally on three projects. (a) to reach a membership of 100; (b) to donate $1.00 per member to A.M.E.F. and (c) to keep Nurse Loan Fund ready for another nurse next fall. Each was reached.

A Safety talk given to 30 guests at a luncheon.

Auxiliary helped sponsor Diabetic Detection drive.

Two radio series heard over local stations, one on Diabetes, the other on Cancer.

Two Future Nurses Clubs operate under sponsorship of members.

Members 100 per cent registered to vote.

A Member-at-Large enrolled from neighboring county.

A Blood Pressure Machine given to Old Folks Home at Christmas and donation of food and service to U.S.O.

Jasper County: Mrs. W. K. Weiman, President, 48 members. Members cooperated with Cancer Society in organizing and ushering at cancer film presentation to public.

A "book sale" raised $35.00 and given to Missouri University School of Medicine for A.M.E.F. contribution.

Civil Defense speaker presented from Filter Center. Five members participated in this operation.

A Nurses Scholarship Loan has sent two girls on way to becoming nurses. Voluntary contributions and Bingo helped net the required amount.

Spending money given to twenty-eight children in Big Brother's Home. Silver spoons sent to all new babies of members.

Members provide transportation to some thirty high schools in area for nurse recruitment crews of local nurse training school.

Total membership registered to vote and health legislation studied at meetings.

10th District. Mrs. John Crowe, Director

Mineral Area: Mrs. Jack Mullen, President, 22 members (14 active, 8 pay dues only). All members participate in Disaster plan set up for area.

Local high school has Future Nurses Clubs and Auxiliary has given a tea for the nurses.

A contribution of $11.00 given to Mentally Retarded Children's School and a Christmas party with gifts and refreshments given. Also contribution to the Presbyterian Home (orphanage) at Farmington and magazines and games to the approved nursing homes in the area.

About 75 per cent have had their physical checkups and all heartily promote this idea.

Last year with a balance of $9.50 in treasury a check was sent to A.M.E.F. for $8.00 A contribution will be made but voluntary this year.

Auxiliary enjoys good press coverage on their special projects.

(Continued on page 392)

Missouri Medicine

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Vol. 54 April, 1957 Number 4

Bronchodilator Drugs

A Comparison in Emphysematous Patients

BURNET W. PEDEN, M.D., AND HERBERT C. SWEET, M.D., *St. Louis*

MOST PATIENTS with pulmonary emphysema show some degree of bronchospasm as evidenced by the determination of the vital capacity and maximum breathing capacity before and after the administration of bronchodilator drugs. It is the purpose of this paper to record a study of certain drugs, over a period of five hours and to determine the comparative effect of these agents.

Seven patients with evidence of pulmonary emphysema have been studied with regard to their response to aminophylline, 0.5 gram intravenously; epinephrine, 0.5 cc. of 1-1,000 dilution intramuscularly; ephedrine, 30 mg. per os; orthoxine, 150 mg. per os; and the sublingual bronchodilator tablet, Win 3046-B,[1]* and to placebos in the same group of patients.

The lung function data of these patients is summarized in table 1. It is felt that all of these patients clinically show evidence of pulmonary emphysema and that the lung function studies substantiate this.

TABLE 1

LUNG FUNCTION DATA OF PATIENTS TESTED

Patient	*Sex*	*Age*	*Height*	*Weight*	*B.S.A.*	*T.L.V.*	*R.A.*	*R.A./T.L.V.*	*V.C.*	*M.B.C.*	*Tests*
M. D.	M	64	64 in.	95 lb.	1.45	4.9L	3.0L	61%	1.9L	27	6
R. F.	M	54	65 in.	106 lb.	1.49	6.5L	4.6L	71%	1.9L	28	3
J. H.	M	74	65 in.	145 lb.	1.71	5.6L	3.1L	55%	2.5L	34	6
H. O.	M	53	68 in.	111 lb.	1.60	6.4L	4.6L	72%	1.8L	18	1
J. P.	M	63	72 in.	155 lb.	1.88	5.6L	3.5L	62%	2.1L	20	3
F. S.	M	54	66 in.	117 lb.	1.55	5.3L	3.9L	73%	1.4L	25	3
A. T.	M	67	67 in.	118 lb.	1.58	6.4L	3.9L	61%	2.5L	30	7

Average of a number of determinations over a one year period.

B.S.A., Sq. M.
T.L.V., Total lung volume.
R.A., Residual air.
V.C., Vital capacity.
M.B.C., Maximum breathing capacity, L/Min.
Tests, Number used in obtaining average.

The determination of maximum breathing capacity and vital capacity were carried out with the Collins nine liter Respirometer. All determinations were made in the supine position. The maximum breathing capacity determination was done according to the method described by Baldwin, Cournand and Richards.[2] The vital capacity determination was obtained from maximum expiration to maximum inspiration and from maximum inspiration to maximum expiration. The vital capacity measurements used in this study are the ones obtained from expiration to inspiration, these usually giving the largest volume.

The vital capacity and maximum breathing capacity were determined in the resting state under basal conditions before the administration of the drug or placebo. These determinations were repeated at one half hour, two hours, three and one half hours, and five hours, after the administration of the drug. The patients remained fasting during this period.

The results are shown in figure 1. The administration of a placebo failed to produce a definite change in vital capacity or maximum breathing capacity in any of the subjects.

The vital capacity increased 200 cubic centimeters or more in two of the seven subjects after adrenalin, in six of the seven after ephedrine, and in five after aminophylline, orthoxine and Win 3046-B.

The maximum breathing capacity increased 5 liters or more per minute in five of the seven patients after adrenalin, in all seven after aminophylline, ephedrine and Win 3046-B, and in four after orthoxine.

It is to be noted that the type of response varied with the patients and seemed to be independent of the drug administered. Thus, five of the pa-

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* Supplied by Winthrop-Stearns, Inc.

From the James B. and Ethel Miller Pulmonary Laboratory, Department of Internal Medicine, St. Louis University School of Medicine.

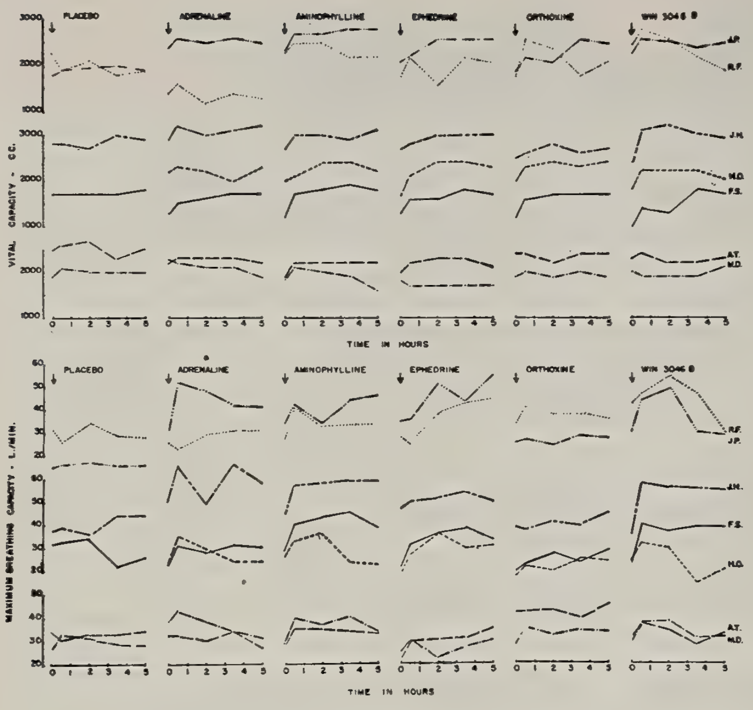

Fig. 1. Response to bronchodilator drugs.

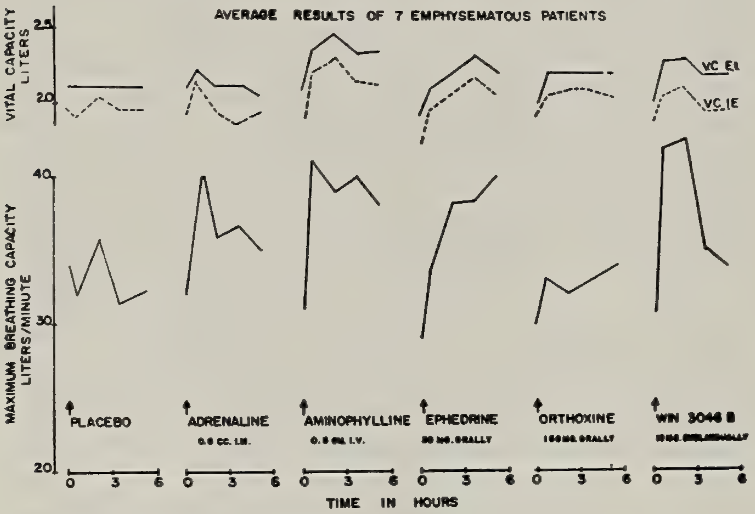

Fig. 2. Vital capacity and maximum breathing capacity response to drugs.

tients (J. P., R. F., J. H., H. O., and F. S.) responded each time with an increase in both vital capacity and maximum breathing capacity.

The patient (M. D.) showed no response to any of the drugs insofar as his vital capacity was concerned but showed an increase in maximum breathing capacity with each drug administered. The last patient (A. T.) showed an irregular response, some days reacting and some days not.

The average response of the seven patients to these drugs is presented in figure 2. With placebo administration the average vital capacity did not change, while the average maximum breathing capacity showed some variation during the five hours but no real increase. Adrenalin, aminophylline and the sublingual tablet Win 3046-B produced a maximum response within thirty minutes, which in the case of adrenalin lasted less than two hours, with Win 3046-B between two and three and one half hours, and with aminophylline tended to persist for five hours. The response to ephedrine was slow and did not reach its peak for from three and one half hours to five hours. Orthoxine gave rise to a more feeble response which tended to persist for the five hour period.

The vital capacity determination from inspiration to expiration followed the general pattern of the vital capacity determined from expiration to inspiration, but there was no demonstrable tendency for these values to approximate each other after any of the drugs.

The relative average effect of these drugs on the inspiratory and expiratory capacities is shown in figure 3. Over the five hour period following placebo administration the inspiratory capacity tended to increase somewhat while the expiratory capacity fell. An increase in both expiratory and inspiratory capacities occurred regularly following the administration of aminophylline, ephedrine, orthoxine and Win 3046-B while following adrenalin only the inspiratory capacity increased.

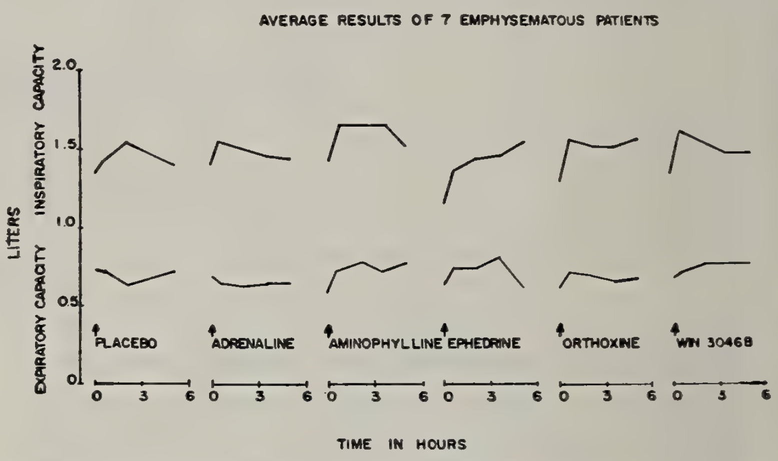

Fig. 3. Inspiratory and expiratory capacity response to drugs.

The maximum breathing capacity data was studied to determine whether the increase in it represented an increase in tidal volume or respiratory rate. The results are shown in figure 4.

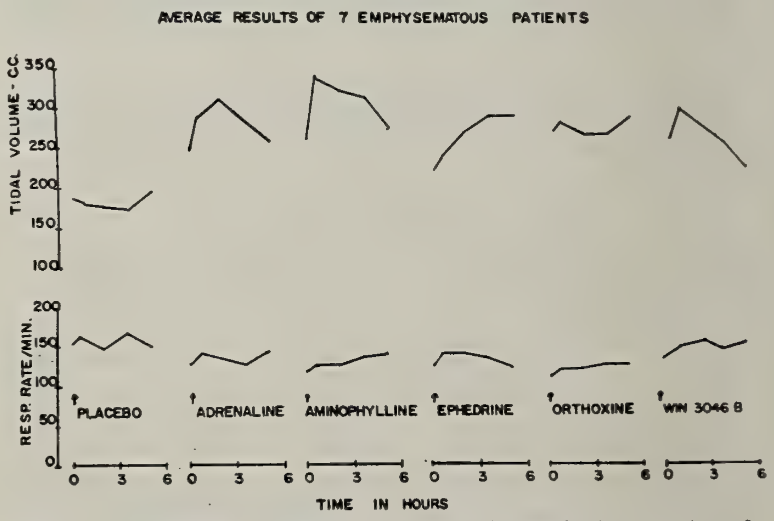

Fig. 4. Change in tidal volume and respiratory rate of maximum breathing capacity test.

Following placebo the tidal volume and respiratory rate of the maximum breathing capacity test did not change. With all the drugs utilized the tidal volume of the maximum breathing capacity test increased, while the respiratory rate showed only slight increase or little change.

The effect of these drugs on resting ventilation is shown in figure 5. Resting ventilation tended to

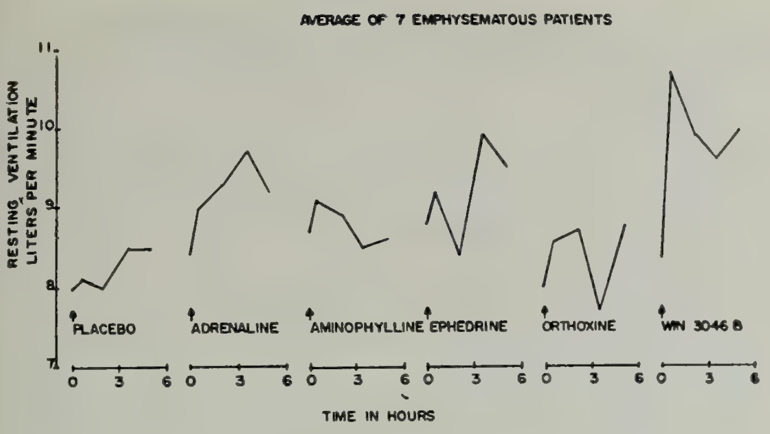

Fig. 5. Resting ventilation response to drugs.

increase slightly after placebo administration, but all five of the drugs studied produced a rise in resting ventilation, this being most marked with the sublingual tablet Win 3046-B, and least with aminophylline and orthoxine.

DISCUSSION

In reviewing the recent literature it is difficult to find reports which are comparable to the present one in regard to the length of time that the vital capacity and maximum breathing capacity were retested following a single dose of bronchodilator drugs in emphysematous patients. There are many reports of the immediate effect of these drugs, especially in patients with bronchial asthma.

Segal et al.[3] showed that intravenous aminophylline gave immediate protection against the bronchoconstricting effect of intravenous histamine and this protection lasted about two hours. Aminophylline was not significantly effective against intravenous mecholyl in preventing bronchospasm.

Whitfield et al.[4] found that oral aminophylline in 0.5 gram dosage did not change the total lung volume, vital capacity or residual air in emphysematous patients who were not clinically asthmatic; that is, in patients without rhonchi.

Goodal and Unger[5] have reported the beneficial effect of continuous intravenous aminophylline in status asthmaticus. Nine of ten of their patients were relieved by this form of treatment.

Epinephrine has long been used in diseases accompanied by bronchospasm. Tainter[6] reported excellent bronchodilating effects of epinephrine in experimental bronchial spasm, and Alexander[7] reported a marked rise in vital capacity in emphysematous patients following its use. Herxheimer[8] recommended giving it in severe attacks of bronchial asthma, and Bresnick et al.[9] found that epinephrine gave as good or better protection against the bronchospastic agents histamine and mecholyl, as did other bronchodilator drugs. However, the cardiovascular and central nervous system side effects produced by epinephrine were often disagreeable.

Ephedrine given orally is a potent and valuable bronchodilating agent. Whitfield[10] found that in emphysema with asthma, ephedrine caused subjective and objective relief with an increase in vital capacity, a decrease in residual air and an increase in depth of respiration. However, in emphysematous patients without bronchospasm (no wheezing or rhonchi) he found no beneficial effect. Herxheimer[11] stated that the maximum effect of ephedrine is usually not reached before fifty minutes, and its effect lasts two to three hours. He found less side-reactions to the drug in patients with asthma and emphysema, and stated that dosages of 3 to 4 grains may be needed. He emphasized individualizing the dosage of this drug and its intermittent use in order to prevent the development of tolerance and loss of effect.

Orthoxine is a relatively new drug. Its successful use in patients with bronchospastic disease has been reported by Schiller et al.,[12] Wittich,[13] Friedlaender,[14] Graham et al.,[15] Curry et al.,[16] Roy et al.,[17] and Bresnick et al.[19] Most authors agreed that oral orthoxine and ephedrine were effective in protecting against asthma-like attacks induced by parenteral bronchospastic agents, such as histamine and mecholyl, and that in these experiments and in the experimental animal orthoxine produced more bronchodilation than ephedrine, but less than epinephrine. In clinical asthma Schiller[12] found that more patients obtained relief with ephedrine than with orthoxine, while in the treatment of allergic diseases Wittich[13] stated that the results with orthoxine were superior in all cases to those obtained with ephedrine. Wittich also stated that orthoxine is effective in from twenty to thirty minutes, and its effect lasts three to four hours. Curry[16] reported that orthoxine and ephedrine are similar in time of onset and duration of action. Oral orthoxine and ephedrine were most effective in mild and moderate asthma, and were usually not effective at all in acute asthmatic attacks. All authors agreed that orthoxine produced less central nervous system excitatory effect, less pressor action and less effect on the heart rate than ephedrine and much less of these effects than epinephrine. It was suggested that orthoxine may be used in place of ephedrine, especially in hypertensive patients, and when ephedrine causes undesirable side reactions.

Win 3046-B was prepared in an attempt to combine the high bronchodilator activity of isopropylarterenol (Isuprel) with the minor cardiovascular effects of ethylnorepinephrine (Butanefrine), and is a derivative of these two compounds. It was supplied as a 10 mg. sublingual tablet. By animal experiments it was shown to have a bronchodilator activity similar to that of isuprel and greater than that of epinephrine and butanefrine, and to have a protective action against histamine induced and mecholyl induced asthma. Win 3046-B caused less acceleration of the heart rate than isuprel and epinephrine, less blood pressure depression than isuprel, and a slight central nervous system depressant action as is the case with isuprel.[1]

SUMMARY AND CONCLUSIONS

1. In the emphysematous patients reported in this study an increase in vital capacity and maximum breathing capacity occurred in most cases following the administration of the usual bronchodilator drugs.

2. The response occurred regardless of the drug administered or the route of administration.

3. From the point of view of rapidity of action and duration of response intravenous aminophylline appeared to be the most effective of the drugs studied.

4. Of the oral bronchodilator drugs, ephedrine gave a better response than orthoxine but was more apt to produce unpleasant side effects.

5. The sublingual tablet Win 3046-B produced a good bronchodilating response which came on rapidly but was of short duration.

BIBLIOGRAPHY

1. Lands, A. M.; Ludijena, F. P.; Grant, J. I., and Ananenko, Estelle: The Pharmacologic Action of Some Analogs of 1-(3, 4-Dihydroxpheyl-2- amino-1- butanol ethylnorepinephrine, J. Pharmacol. & Exper. Therap. **99**:45-56, 1950.

2. Baldwin, Eleanor deF.; Cournand, Andre; Richards, Jr., and Dickinson, W.: Pulmonary Insufficiency I. Physiological Classification, Clinical Methods of Analysis, Standard Values in Normal Subject, Medicine **27**:243-278, 1948.

3. Segal, M. S.; Levinson, L.; Bresnick, E., and Beakey, J. F.: Evaluation of Therapeutics and Substances Employed for the Relief of Bronchospasm VI. Aminophylline, J. Clin. Investigation **28**:1190-1195, 1949.

4. Whitfield, A. G. W.; Arnott, W. M., and Waterhouse, J. A. H.: The Effect of Aminophylline in Emphysema, The Lancet **1**:490-492, 1951.

5. Goodall, R. J., and Unger, L.: Continuous Intravenous Aminophylline Therapy in Status Asthmaticus, Ann. Allergy **5**:196-202, 1947.

6. Pedden, J. R.; Tainter, M. L., and Cameron, W. M.: Comparative Actions of Sympathomimetic Compounds. Bronchodilator Actions in Experimental Bronchial Spasm of Parasympathetic Origin. J. Pharmacol. & Exper. Therap. **55**:242-256, 1935.

7. Kountz, W. B., and Alexander, H. L.: Emphysema, Medicine **13**:251-316, 1934.

8. Herxheimer, H.: The Symptomatic Treatment of Bronchial Asthma, Practitioner **159**:399-401, 1947.

9. Bresnick, E.; Beakey, J. F.; Levinson, L., and Segal, M. S.: The Evaluation of Therapeutics Substances Employed for the Relief of Bronchospasm V. Adrenergic Agents, J. Clin. Investigation **28**:1182-1183, 1949.

10. Whitfield, A. J. W.; Arnott, W. Melville, and Waterhourse, J. A. H.: The Effects of Ephedrine in Asthma and Emphysema, Quart. J. Med. **19**:319-325, 1950.

11. Herxheimer, H.: Dosage of Ephedrine in Bronchial Asthma and Emphysema, Brit. M. J. **1**:350-352, 1946.

12. Schiller, I. W.; Lowell, F. C.; Franklin, W., and Denton, C.: Orthoxine in Bronchial Asthma. A Clinical Evaluation, New England J. Med. **241**:231-233, 1948.

13. Wittich, F. W.: A Clinical Evaluation of Orthoxine in the Treatment of Allergic Diseases, Ann. Allergy **6**:664-666, 1948.

14. Friedlaender, S., and Friedlaender, A. S.: Observations on the Action of Orthoxine in Patients With Bronchial Asthma, Ann. Allergy **7**:683-688, 1949.

15. Graham, B. E.; Kuizenga, M. H.: A Pharmacologic Study of Orth-Methoxy-Beta-Phenyl-Isoprophyl Methylamine Hydrochloride, and Thirteen Related Methoxy Analogues, J. Pharmacol. Exper. Therap. **94**:150-166, 1948.

16. Curry, J. J.; Fuchs, J. E., and Leard, S. W.: Clinical and Experimental Studies With Orthoxine in the Treatment of Bronchial Asthma, J. Allergy **20**:104-109, 1949.

17. Roy, E. C.; Seabury, J. H., and Johns, Jr., L. E.: Spirometric Evaluation of Orthoxine in Bronchial Asthma, J. Allergy **20**:364-368, 1949.

The authors wish to express their appreciation for the technical assistance of Miss Mary Claire Jourdan, B.S., Mr. William Weindell, B.S., and Mrs. Joan Montgomery.

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Estrogen Therapy in Myasthenia Gravis

Report of Two Cases

JOSEPH B. VACCA, M.D., AND WILLIAM A. KNIGHT, JR., M.D., *St. Louis*

THE EFFECTS of pregnancy, termination of pregnancy and menstruation on the course of myasthenia gravis have been noted by a number of authors.[1-10] While pregnancy usually does alter the severity of the myasthenic state, the changes are not constant even in successive pregnancies. However, a significant number of patients experience a complete or near complete remission of symptoms, especially in the latter trimesters. Termination of pregnancy, either at term or by miscarriage, is often followed by a relapse or increase in severity of the myasthenic symptoms. The initial symptoms of myasthenia gravis are noted to follow soon after childbirth in a lesser but significant number of patients. Some patients note increased weakness during and immediately preceding menstrual periods.[1, 2]

These facts would seem to indicate that the hormones involved in pregnancy and the menstrual cycle affect in some way neuromuscular transmission in myasthenia gravis. It appears that improvement may occur when the levels of gonadotrophic and ovarian hormones are at high levels, and that relapses often occur when these levels are low or falling.

It seemed natural to wonder what effect the administration of exogenous female hormones would have on the course of myasthenia gravis. However, we are aware of only one case in the literature in which this was tried[3] although other authors have postulated possible beneficial results.[4] Because of the lack of available information on this aspect, we are reporting two patients with myasthenia gravis who received large doses of estrogenic substances over relatively short periods of time.

CASE REPORTS

Case 1. F. V. A 47 year old male of Italian extraction was admitted to Firmin Desloge Hospital on December 21, 1955, for evaluation and therapy of myasthenia gravis of seven years duration. In 1948 he noted diplopia which was soon followed by dysphagia and difficulty in chewing. Approximately one year later he developed generalized weakness which was aggravated by activity and relieved by rest. A thymectomy was performed in another hospital with little change in symptomatology. Therapy consisting of Neostigmine, 15 mg. four times daily, and ephedrine, 50 mg. twice daily, was administered with moderate improvement. Two years previous to the present admission his general condition worsened and he noted difficulty in speaking, frequent upper respiratory infections, and a 65 pound weight loss. He was now almost completely bedfast. His father had had similar muscular weakness shortly before his death at age 55 years.

On admission, examination of the patient revealed a blood pressure of 115/84, pulse 80 per minute, respirations 18 per minute, and temperature of 98.6 F. He was well developed, undernourished, but in no acute distress. Bilateral ptosis was present, most marked on the left, with a marked esotropia and difficulty in closing the eyes. The thyroid gland was not palpable. There was a well healed vertical parasternal thoracotomy scar. Respiratory excursions were diminished but symmetrical. The lungs were clear to percussion and auscultation and the examination of the heart revealed no abnormalities. The abdominal musculature was quite relaxed. The testes were small and soft with a left spermatocele. Anal sphincter tone was relaxed. There was generalized weakness of all muscle groups especially pronounced after repetitive actions which improved after brief rest. There was generalized muscular atrophy but no fibrillation or fasciculation. The deep tendon reflexes were all present and symmetrical, the superficial reflexes were present, and no pathologic reflexes were elicited.

The hemogram and urinalysis were normal and the VDRL non-reactive. Other laboratory data were: fasting blood sugar 99 mg. per cent; serum cholesterol 270 mg. per cent; nonprotein nitrogen 38 mg. per cent; serum electrolytes, all within normal limits; urine negative for ribose. The basal metabolic rate was minus 30 per cent but the radioactive iodine uptake was normal (20 per cent). A chest roentgenogram was within normal limits.

There was a dramatic response to 10 mg. of intravenous Tensilon. The Neostigmine dosage was increased to 15 mg. hourly while awake; the ephedrine was continued. On this regimen he appeared to be moderately well controlled. When stabilized, he was given parenteral Theelin, 20,000 units daily for seven days. There was no improvement clinically or as indicated by ergograms (figures 1 and 2). The patient has subseqently been followed as an out-patient for four months with gradual improvement, but no more than could be expected from better dosage regulation of Neostigmine.

Case 2. D. C. This 48 year old Negress entered Firmin Desloge Hospital on January 14, 1956, because of progressive, severe muscular weakness. She had felt well until six months prior to admission when she fell to the floor because of sudden weakness of her lower extremities and was unable to rise until she had rested for thirty minutes. Subsequently she had similar falls two or three times a week and noted the onset of diplopia, ptosis, dysarthria, dysphagia and the inability to hold her head up or her mouth closed. She was seen in the Neurology Clinic on November 30, 1955, where a test dose of Neostigmine was followed by dramatic subjective and objective improvement. She was placed on Neostigmine, 15 mg. every two hours; there was some, but not striking, improvement on this reg-

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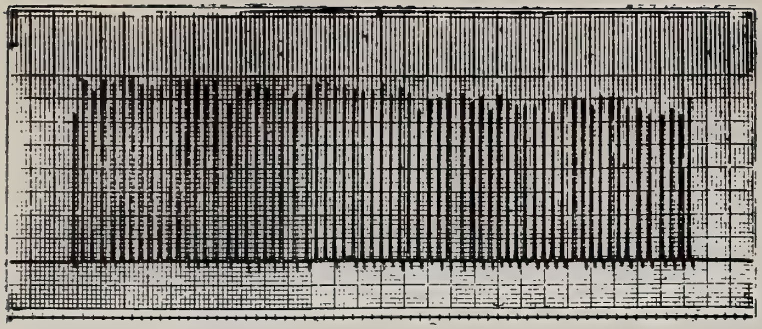
From the Department of Medicine, St. Louis University School of Medicine, St. Louis.

F.V.



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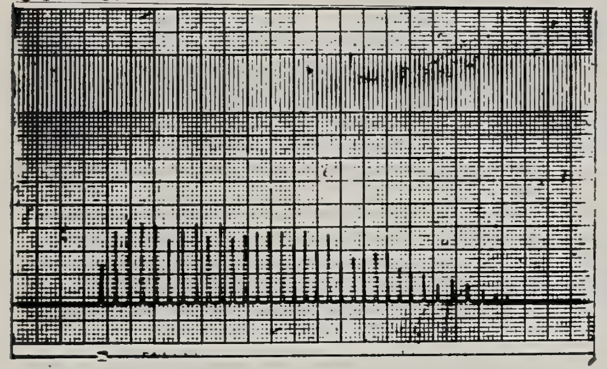
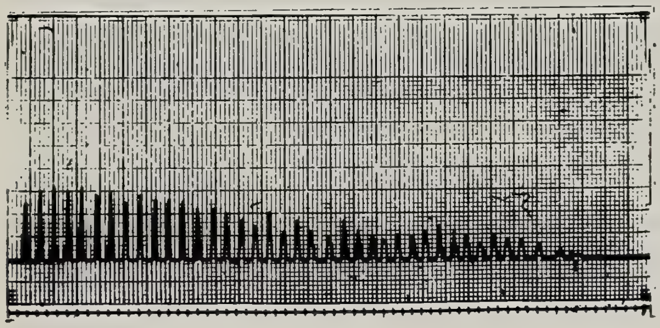


No neostigmine



I hr. after neostigmine

Fig. 1. Ergograms of F. V., Case 1, before estrogen therapy. Patient directed to squeeze a compressible rubber bulb maximally once per minute.

imen. She was admitted to the hospital for further study.

The patient had had a Cesarean section twenty years previously. Menses had started at the age of 9 years and were regular until the onset of unexplained amenorrhea at age 33 years. She had a one year history of post-prandial abdominal bloating relieved by eructation.

On admission, examination of the patient revealed a blood pressure of 110/70, pulse 72 per minute, respiration 16 per minute, and temperature 98.6 F. She was a well developed and obese Negress, not in acute distress. There was bilateral ptosis with marked exotropia. Her head tended to droop forward and her mouth to fall open unless supported. Speech was slurred and obviously difficult. The thyroid gland was not palpable. The breasts were pendulous but without palpable masses. The lungs were clear to percussion and auscultation and examination of the heart revealed no abnormalities. There was a 3 by 4 cm. umbilical hernia and a right paramedian lower abdominal scar. Anal sphincter tone was fair. Pelvic examination revealed a senile cervix and a 0.5 cm. cervical polyp. There was marked generalized muscular weakness accentuated by repetitive actions and which improved after brief rest.

The hemogram and urinalysis were within normal limits and the VDRL nonreactive. Other laboratory data included: fasting blood sugar 100 mg. per cent; nonprotein nitrogen 34 mg. per cent; serum diastase 160 units; serum creatinine 0.63 mg. per cent; serum creatine 12.6 mg. per cent; stool guaiac negative.

A chest roentgenogram revealed increased bronchovascular markings but no evidence of a mediastinal mass. The gallbladder was not visualized with a double dose of Telepaque. An electrocardiogram was normal. Pulmonary function studies were found to be: total lung volume 73 per cent of normal; vital capacity 68 per cent of normal; maximum breathing capacity 51 per cent of normal; slightly increased residual air and alveolar nitrogen after oxygen breathing.

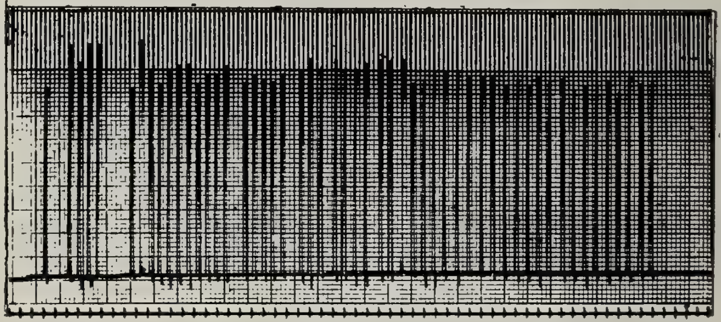
Neostigmine was administered and the dosage was increased gradually until she was receiving 60 mg. every two hours. At that point the maximum effect from this drug seemed obtained but there was still severe muscular weakness and her course seemed progressive. Theelin, 20,000 units parenterally, was administered each day for fourteen days. The symptoms seemed to worsen during this period and this impression was confirmed by ergograms (figures 3 and 4). After the Theelin was discontinued the Neostigmine was increased to 45 mg. every hour without improvement. Eight days after the estrogens were discontinued the patient was found on the floor; she was cyanotic and respirations were barely perceptible. In spite of a tracheostomy, positive pressure oxygen, large doses of atropine and later of Neostigmine, and the use of a Drinker respirator, the patient died a few hours later.

Postmortem examination revealed a 7 by 5 by 2 cm. anterior mediastinal tumor which weighed 50 gm. The mass was quite firm and was gray and lobulated on cut section. There were several gallbladder calculi. The right ovary and Fallopian tube were absent. Several subserosal and intramural myomata were noted.

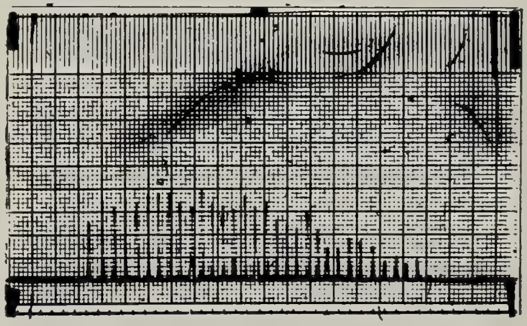
Histologic sections showed the thymic tumor to contain various sized cellular masses divided by bands of fibrous tissue. The cellular masses varied from those

Fig. 2. Ergograms of F. V., Case 1, after seven days of estrogen therapy.

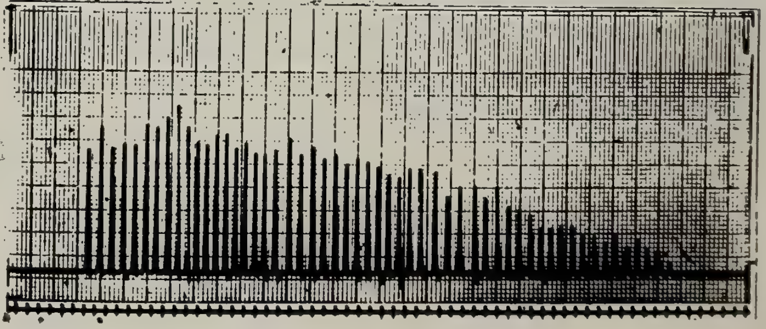
F.V.



Control



No neostigmine - after 7 days estrogen



I hr. after neostigmine - after 7 days estrogen containing mostly epithelial type cells to those composed mostly of small, round "thymocytes." Many were an intermediate type composed of a mixture of the epithelial cells and "thymocytes." The final anatomic diagnosis of the tumor was a rather typical thymoma.

DISCUSSION

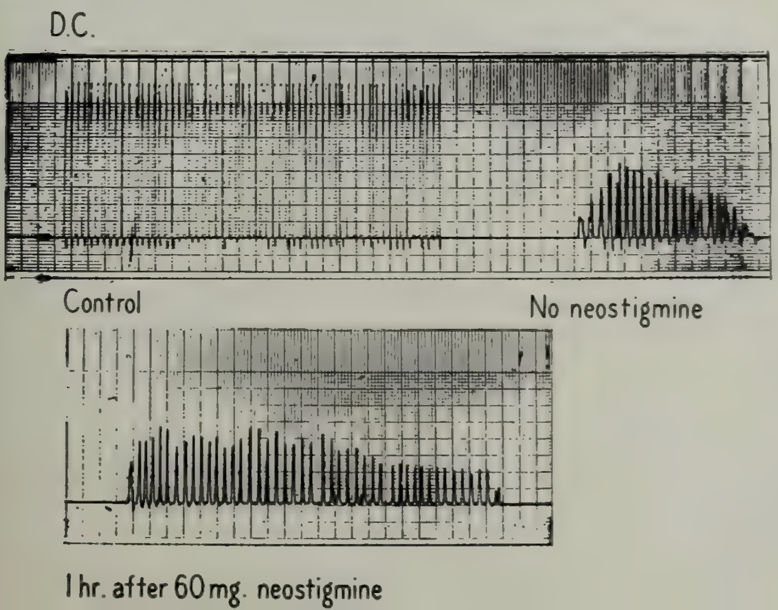
In a comprehensive review in 1942 Viets, Schwab and Brazier reported eight females in whom nine pregnancies occurred after the onset of myasthenia gravis and concluded that "the course of myasthenia gravis is profoundly affected by the advent of "pregnancy."[1] In seven of these pregnancies a "complete remission" of symptoms occurred after two to four months of gestation; in five there were mild relapses, usually in the first trimester only; in eight pregnancies there were relapses following delivery or abortion and in one the onset of myasthenic symptoms followed shortly after a miscarriage. Two patients were noted to have increased symptoms during menstruation. In their review of twenty-six cases from the literature, these authors found ten in whom marked improvement occurred and twelve in whom relapses occurred during pregnancy, and twelve in whom relapses occurred following delivery or miscarriage.

Fraser and Turner reported on the effects of pregnancy in fourteen women who had a total of fifteen pregnancies after the onset of myasthenia gravis.[5] In five pregnancies there was improvement, in five a relapse occurred either early or late, and in six there was no change in symptoms. These authors found that a relapse will occur postpartum in about one half of females with myasthenia gravis.

Kennedy and Moersch reported seven patients in whom twelve pregnancies occurred during the course of myasthenia gravis.[6] In five pregnancies the symptoms were aggravated; in four of the five the symptoms improved with termination of pregnancy or weaning of the child. During seven pregnancies no change in symptoms was noted.

Harvey commented in 1948 that "pregnancy also influences the course of this disease (myasthenia gravis) but the pattern is not always consistent. It has been uniformly true that the disease became more severe following the birth of the child."[2] He also noted that most myasthenic patients will notice an increase in the severity of their weakness for several days before the onset of menstrual flow and abrupt improvement after the menstrual period.

Fig. 3. Ergograms of D. C., Case 2, before estrogen therapy.



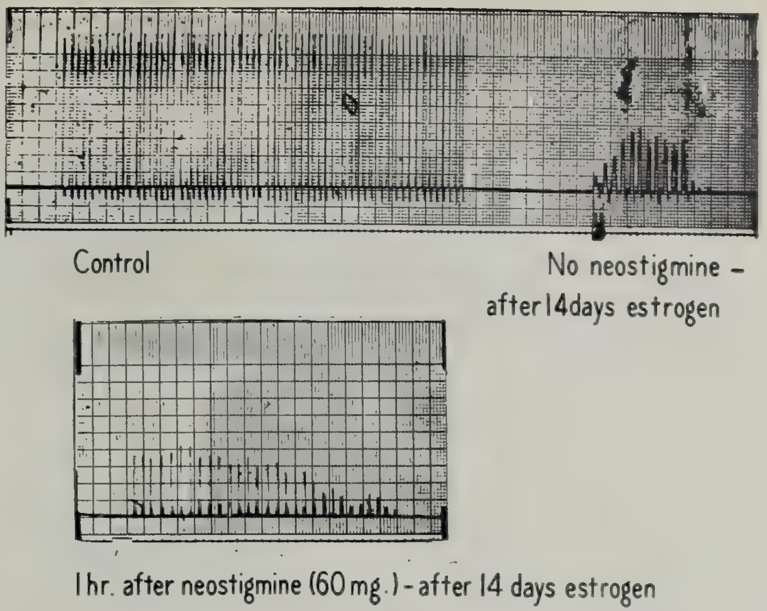

Control
No neostigmine - after 14days estrogen
I hr. after neostigmine (60 mg.) - after 14 days estrogen

Fig. 4. Ergograms of D. C., Case 2, after fourteen days of estrogen therapy.

Schlezinger[7] recently reported observations on six pregnancies in myasthenic patients; in three there were marked remissions in the last trimester, in two there were exacerbations, and no change occurred during one. Postpartum relapse occurred in three and improvement occurred in one after delivery.

Osserman[8] reported that during thirty-three pregnancies in twenty-two myasthenic patients 32 per cent of the patients showed a definite remission, 34 per cent showed no change in their myasthenic state and 34 per cent showed a definite relapse.

While the effects of pregnancy on the course of myasthenia gravis are not constant even in successive pregnancies in the same patient, a significant number are associated with "complete remissions." This, coupled with the oft noted increase of symptoms postpartum and at the time of menstruation, suggests a relationship of severity of myasthenic symptoms to levels of gonadotrophic and ovarian hormones or both. Certainly the lack of beneficial results from the use of estrogens in our two cases is not sufficient data from which to draw any conclusions as to the possible usefulness of exogenous hormones in this disease.

Estrogen was used in our patients because it was most readily available. It has been demonstrated that estrogens will increase the content of acetylcholine in certain organs in certain experimental animals.[11-14] Since the concept of the basic pathophysiology in myasthenia gravis is that of insufficient utilizable acetylcholine at the motor end plates, an attractive supposition would be that pregnancy and menstrual hormones may increase available quantities of acetylcholine at these points.

Goni[3] has reported the only previous case that we could find in a careful review in whom estrogens were tried; he states that the patient felt some better. Viets, Schwab and Brazier have reported lack of improvement in myasthenia when chorionic extracts were used.[15] Apparently, however, progesterone and chorionic gonadotrophins have not been tried in the therapy of myasthenia gravis although the use of the latter has been suggested.[4] They should be tried. Similarly, more cases should be tried on estrogens or combinations of these agents.

Factors which have been shown to alter the course of this disease and the response to accepted therapeutic measures that must be taken into consideration in further evaluation of the effectiveness of these hormones are: (1) age and sex of the patient; (2) duration and severity of symptoms; (3) presence and type of thymic abnormalities.

SUMMARY AND CONCLUSIONS

A review of the literature is presented on the relationship of pregnancy, menstruation and the termination of pregnancy on the course of myasthenia gravis. Two cases are reported in which the use of rather large amounts of estrogen for relatively brief periods of time did not favorably affect the course of the disease. It is suggested that further studies on the effect of estrogen, as well as other hormones intimately associated with menstruation and pregnancy, be made on selected patients with myasthenia gravis.

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BIBLIOGRAPHY

1. Viets, H.; Schwab, R. and Brazier, J.: The Effect of Pregnancy on the Course of Myasthenia Gravis, J.A.M.A. **119**:236, 1942.

2. Harvey, A.: Some Preliminary Observations on the Clinical Course of Myasthenia Gravis, Before and After Thymectomy, Bull. N. Y. Acad. Med. **24**:505, 1948.

3. Goni, A.: Myasthenia Gravis. Williams and Wilkins Co., Baltimore, 1946.

4. Schade, F., and Foley, M.: Pregnancy in Myasthenia Gravis, Am. J. Obst. & Gynec. **63**:1154, 1952.

5. Fraser, D., and Turner, J.: Myasthenia Gravis and Pregnancy, Lancet **2**:417, 1953.

6. Kennedy, F., and Moersch, F.: Myasthenia Gravis: A Clinical Review of Eighty-seven Cases Observed Between 1915 and the Early Part of 1932, Canad. Med. A. M. **37**:216, 1937.

7. Schlezinger, N.: Pregnancy in Myasthenia Gravis and Neonatal Myasthenia Gravis, Am. J. Med. **19**:718, 1955.

8. Osserman, K.: In Discussion, Am. J. Med. **19**:720, 1955.

9. Laurent, L.: Remissions and Relapses Associated With Pregnancy in Myasthenia Gravis, Lancet **1**:753, 1931.

10. Harris, L., and Schneider, G.: Pregnancy in Myasthenia Gravis, Am. J. Obst. & Gynec. **56**:561, 1948.

11. Reynolds, S., and Foster, F.: Relative Cholinergic Effects of Selected Estrogens, Am. J. Physiol. **128**:147, 1939.

12. Reynolds, S., and Foster, F.: Acetylcholine-Equivalent Content of the Vagina and Vulva of Ovariectomized Rabbits, Before and After Administration of Estrogen, Endocrinol. **27**:841, 1940.

13. Reynolds, S., and Foster, F.: Acetylcholine-Equivalent Content of the Nasal Mucosa in Rabbits and Cats, Am. J. Physiol. **131**:422, 1940.

14. Reynolds, S., and Foster, F.: Species Differences in the Cholinergic Action of Estrogen, Am. J. Physiol. **131**:200, 1940.

15. Viets, H.; Schwab, R., and Brazier, J.: Effect of Pregnancy on the Course of Myasthenia Gravis. In Discussion, Arch. Neurol. & Psychiat. **47**:1082, 1942.

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Case Report

Chronic Myelogenous Leukemia

An Eight Year Experience

RALPH S. CASFORD, M.D., *Kansas City*

THE VAGARIES OF experience of several years in a case of chronic myelogenous leukemia from discovery of the malady to the present time is outlined. As is usual in surveying past clinical work, many errors and a few victories in treatment are discovered and all will be reported as factually as possible. I think probably this has always been the case, especially when treating a disease of unknown etiology; no one knows just when and where to aim his therapeutic missiles.

Mrs. E. C. W., a 36 year old housewife, appeared August 10, 1948, with a chief complaint of fullness and a sense of weight in the upper left abdomen. The family history as well as the past history were of no importance. She stated that this fullness had been apparent to her for two or three months. She particularly noticed this on change of position or when walking. There had been no change in bowel habits, loss of weight, jaundice or diarrhea. However, she felt distended after eating a normal sized meal or when eating fats. There had been no epistaxis.

Physical Examination—This patient was a fair skinned, 36 year old white woman of spare build, about 5′ 6″ tall, weighing about 115 pounds. The temperature, pulse and respiration were normal. Blood pressure was 110/70. She did not appear ill. The positive physical findings were as follow: (1) Many carious teeth. (2) A smooth non-tender palpable mass, which was freely movable, occupied the entire upper left quadrant and extended well down below the level of the umbilicus. The liver was not palpable. There were no palpable lymph glands in the axillary, cervical or inguinal regions.

Laboratory—RBC, 4,800,000; WBC, 40-60,000 per 1 c. mm.; urine: slightly cloudy, straw colored; specific gravity, 1.017; trace of albumin; sugar, negative; microscopic, negative. Sedimentation rate (Westergren Method) 15 mm. per 60 minutes.

Due to the findings it was thought advisable to refer this patient to the hospital for more definite study.

The patient was admitted to St. Luke's Hospital, Kansas City, on August 17, 1948, where the diagnosis was confirmed by the differential blood count. At that time the blood picture was as follows: Red blood cells, 3,700,000; white blood cells, 56,000; differential, predominately immature myelocytes.

Urine was cloudy and straw colored, albumin was negative and sugar was negative. Microscopically there were degenerated forms of white blood cells plus amorphous urinary sediment.

At that time, radiation therapy to the spleen was instituted and after one course of such treatments, the total white count at the office on September 8, 1948, was 35,650, and the red count was 3,780,000.

During the next six or seven years, this patient made innumerable visits to the office for observation and treatment. She received Fowler's Solution, B 12 injections, and various hematinics in an attempt to maintain her physical well-being. Whenever the blood picture became too much out of line, she would be admitted to the hospital for transfusions or x-ray therapy, or both, and usually would receive some benefit from these procedures. However, at last it became evident that x-ray therapy was failing to give relief.

The patient was admitted to St. Luke's Hospital on January 18, 1955, in critical condition. The spleen was quite enlarged, filling practically the entire abdomen, and was of stony hardness. The patient appeared toxic. There were numerous purpuric areas over the back and lower extremities and a large bluish mass in the right flank. At that time, the blood picture was as follows: hemoglobin, 71 per cent; red blood cells, 3,720,000; white blood cells, 244,000; differential: neutrophils 31, lymphocytes 1, metamyelocytes 41, myelocytes 21, promyelocytes 4, blasts 2.

At that time, the patient was given Myleran, 2.0 mg. qid, and received during the next three weeks approximately 215 mg. in addition to three or four transfusions. On February 18, 1955, the day before dismissal from the hospital, the blood picture was as follows: Hemoglobin, 80 per cent; red blood cells, 4,160,000; white blood cells, 42,000; differential: neutrophils 53, lymphocytes 6, eosinophils 2, metamyelocytes 33, myelocytes 6.

During this time the spleen had diminished considerably in size and was freely movable in the abdomen, and the purpuric areas had disappeared. The patient was able to be up and about the ward and also had a fair appetite. She was sent home on a dosage of 10 mg. of Myleran per week. Since that time she has been seen numerous times at the office and up to the present it has been possible to control her on Myleran. At times, the total white count has been as low as 15,000 or less. At present she has spent two months in the Colorado mountains and has needed no treatment.

SUMMARY

A case résumé of chronic myelogenous leukemia temporarily controlled by Myleran and transfusions is presented.

221 Plaza Medical Building

Special Article

Commitment Laws

Evaluation of Those Governing Admission of Patients to Missouri State Mental Hospitals

ALFRED K. BAUR, M.D., *Fulton*

Before discussing the present commitment laws of Missouri I would like to mention certain matters which need to be considered in devising any procedure for commitment of mental patients.

First, one must recognize that one is dealing with human beings who are sick. It may be your wife or mine, it may be your son or mine, it may be you or I who needs the healing care of one of the mental hospitals. Any commitment law must consider that one is dealing with sick people—not evil, possessed, criminal, perverted, mean or what not—but sick. The implication of this fact is that the laws must make it possible for these sick people to receive hospitalization at the time they need it and as quickly and easily as possible to consumate the admission.

Secondly, it needs to be recognized that of all illnesses, some (but not all), mentally ill people are sick in such a way that there may be a derangement of that part of his mental function which tells him he is sick or that there is something wrong. This is what those in psychiatry recognize as "lack of insight." Because this is so, the law must make provision for involuntary commitments; that is, care and treatment may not be recognized as a need by the person who is ill, but is recognized by relatives or friends, or neighbors, as needed. As a result of the lack of recognized need by some mentally sick people, hospitalization by force becomes necessary.

This leads to the third principle needed to be considered; namely, that the law must recognize and safeguard constitutional rights of individuals. This is one of the most difficult and disputed areas with which to deal. At the one extreme is the viewpoint that these people are sick. They need treatment although they do not recognize this and are uncooperative as regards hospitalization and, therefore, one should ignore legal and constitutional procedures and handle them strictly as sick people without regard to their own "distorted" wishes. At the other extreme, there are those who feel that the process of forcible hospitalization and retention of a person is a violation of the basic constitutional and God given right of self determination and is a violation of his entitlement to due process of law before his liberty can be abridged. Although these two positions seem to be mutually exclusive, it is necessary that any correct and well functioning commitment law must reach a middle ground in this dilemma. Although mentally ill, people must be considered and treated as sick people deserving of whatever help is available, yet their rights as individuals must be safeguarded. Not too many years ago the laws in many states required the physical presence of each patient in court for a duly legal hearing before commitment. This, all too frequently resulted in heartache for the patient and family and provided a field day for that segment of the public who sadistically relished the misery and suffering of people. On the other hand there is the example of a recent law in Missouri. which was declared unconstitutional because it was felt that in correcting some of the out-moded aspects of the earlier law the new one went too far in the direction of too few safeguards for the patients' rights under constitutional guarantees.

A fourth consideration is that any good law must make voluntary hospitalization available. In my discussion of patients with impaired insight I said "some (but not all) patients lack a recognition of their need for care and treatment and thus require an involuntary method of commitment." Many mentally sick people are quite aware of their need for hospitalization, even among the psychotic groups, and are willing, if not eager, to be admitted. It seems quite logical that such individuals should have hospitalization made available at least as readily as any other type of sick person in a community.

A fifth consideration is the protection of the community from the possible depredations of mentally sick persons. However, it is a simple fact that only a small minority of patients in mental hospitals can be considered dangerous to other people. The vast majority are there because they need protection from themselves; that is, they may want to inflict injury upon themselves, or because of their confused mental state they cannot take care of themselves.

It is a curious commentary on the attitude of the public that this situation is reacted to emotionally by a complete reversal of these facts; that is, the public reacts as if most mental patients are dangerous to them and that the minority are harm-

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Address given at convention of the Missouri Association of Probate Judges on October 18, 1956, by Dr. Alfred K. Baur, Superintendent, State Hospital Number One at Fulton, Missouri.

less. This, I believe, has traditionally influenced the kind of laws more than any other consideration. One of the bases for this unreasoning fear is that this is the way people react to anything mysterious and little understood. It is a part of fear of the unknown and for too many years mental hospitals have functioned isolated from the community, either geographically or functionally. Even where a hospital is within the limits of a city it is still true that an amazing number of local residents have never even set foot on the grounds of the hospital, much less have been inside any of the buildings. All too often also, the very people who are entrusted with the care of patients in mental hospitals share the same unreasoning prejudice and fear toward the inmates as does the community. This attitude leads inevitably to repressive and harsh treatment, to which patients respond just as would any well person; namely, by hate, hostility and retaliation. Patients can, and do respond to kind, considerate and humane treatment, just as would you and I. In fact, perhaps they even respond more, because their need for kindness and consideration is so much greater than ours.

But obviously society has a right to expect protection from that small group that may be considered dangerous, and laws need to provide for this aspect of the problem.

A sixth consideration which needs recognition may be called the principle of relativity in dealing with mental illness. This is probably the one problem which causes the most difficulty between doctors and lawyers. As far as I am able to understand it in my simple layman's approach, I have the impression that the law tends to deal in terms of black and white. A person is either sane or he is insane. He either knows right from wrong or he does not. He is either sick or well. The doctor on the other hand deals in shades of grey. They are accustomed to think of, for example diabetes, in terms of mild, moderately severe, and severe cases. Some diabetic patients may be allowed an occasional indiscretion in diet, such as a piece of pie, or a high ball. For others such departure from a carefully regulated treatment schedule cannot be tolerated for fear of possible disastrous results to the patient. Similarly, in dealing with mentally sick people one is dealing first of all with many different types of disorders. There is no such thing as mental illness in the singular. Besides dealing with many different types of disorders one also is dealing with varying degrees of involvement which more or less impair a person's judgment, insight, competence and "sanity." Competency is an especially difficult problem. One needs to consider competency from a relative standpoint and in a special setting. One needs to ask, "competent for what"? A mentally ill person may be quite competent to decide what he wants done with a pension of $30 a month, but might be quite incompetent to administer a business or decide what he wants done with a $500,000 legacy. This is of crucial importance also in the area of the commission of criminal acts. What should be the criteria on the basis of which a person is adjudged "not guilty by reason of insanity," or perhaps found guilty of a criminal act in spite of various manifestations of mental illness, either recognized or not by the jury or the court? Time does not permit a fuller discussion of this problem, but I am sure all recognize its difficulty as well as the need for the law somehow to make some effort to take this problem into account.

A seventh point is who decides when a patient may be admitted or released from the hospital. At present this responsibility rests with the superintendent, both as regards admission to the hospital as well as to discharge, the latter, of course, subject to habeas corpus proceedings. I believe this responsibilty must remain with the professional staff of the hospital (in the person of the superintendent). If the superintendent lost this authority the inevitable result would be even more overcrowding than at present and further deterioration of care and treatment which always accompanies over-crowding. There would also ensue an increased tendency to send people who should not be handled in mental institutions at all. A case in point is the law concerning sexual psychopaths. The criminal division at Fulton derives a sizeable percentage of its patients as a result of this law. After a thorough psychiatric evaluation of these cases it is my considered opinion that a number of them should not be handled in a mental hospital setting. This is the group of people designated in psychiatry as "character disorders." Such individuals show a life-long pattern of antisocial or other non-conforming behavior not based on a "disease process," as this is ordinarily understood, but rather based on a failure of adequate character development. In such cases the sexual aberration is simply one manifestation among others of a characterologic defect. In a sense some people are socially and morally deficient in somewhat the same way a feeble minded person is intellectually deficient. The presence of these characterological problems in the criminal division makes it difficult adequately to treat the cases who are mentally sick.

This leads to the eighth consideration; namely, that commitment laws should not deal with the problem of mental illness in terms of the type of offense. There is no more logical reason for special commitment legislation on the basis of alleged mental illness for sex psychopaths than for special legislation on, say, murderers, shop-lifters, or traffic violators. For example, if a man is arrested for speeding and he is found to be acting strangely and further examination shows him to be psychotic, one needs no more special legislation to provide for his handling than for anyone else who may be found in need of hospitalization who has not committed an offense against society. It is my conviction that legislation dealing with mentally sick people as such can cover the sex offender along with others who deviate from the accepted legal standards of society.

Now let us examine the present admission laws and test them against these principles.

1. Does the present law make it possible for the sick people to get treatment as quickly and easily as possible? Sections 5 and 6, especially 6,* provide for such emergency admissions, followed by prompt notification of the court by the superintendent of the admission of the patient.

2. Need for involuntary commitment is obviously taken care of by Section 3.

3. Safeguarding of constitutional rights is in my layman's opinion provided for in Sections 3, 4, 5, 6 and 7. In addition, following admission there are guarantees for rehearings by the court of commitment in addition to habeas corpus rights (See Sections 16, 15 and 23). The right of patients to communicate outside the hospital is covered in Section 22, and strict control of mechanical restraint is provided for in Section 21.

4. Voluntary hospitalization is provided for in Section 17, and the rights of a voluntary admission are protected in Sections 18 and 19.

5. I believe that the law, as a whole, provides adequate safeguards for the community if properly executed.

6. The principle of relativity is at least partially recognized in Section 1, in the definition of "mentally ill individual," i.e., "an individual having a psychiatric or other disease which substantially impairs his mental health who may or may not be legally insane." Here we are beginning to get in law a recognition of the fact that "insanity" is a legal concept and not necessarily applicable to a "mentally ill person." Much more needs to be accomplished between the psychiatric and legal professions in communication with one another as both try to administer the laws and try to operate in accordance with them, and perhaps even to refine them.

7. The control of discharge is vested in the superintendent in Section 202.070, and admissions are contingent on the "extent of the capacity of such institutions to properly accommodate and care for such patients, which shall be ascertained by the probate judge by inquiry of the superintendent before making the order of commitment" (See Section 202.410).

8. This leads to consideration of the criminal sex psychopath law which, of course, is not within the province of the probate courts. But some judges may also act as magistrates and perhaps a few remarks on this subject are relevant here.

(a) In the first place, I believe the definition of the criminal sex psychopath is too loose and obscure. What is a "mental disorder and not insane or feeble minded?" This could include almost anyone who has been "nervous" in some way or another for a year or more. The definition is so broad, in my opinion, that almost anyone who commits a sex offense could well be subject to the law. Another absurdity is the application of this law to juveniles. We had a 15 year old boy sent to the hospital for exhibiting himself at school and who was found in court to fall within the meaning of "the criminal sex psychopath." This is preposterous. I do not object to the hospitalization of such an individual, but I do object to the criminal stigmatization of children by such a law.

(b) As mentioned before, some types of character disorders find their way into the criminal division under this law. The law provides for treatment and detention until the psychopath "has improved to the extent that his release will not be incompatible to the welfare of society." This presents the superintendent of the hospital with a neat problem when the law is applied to character disorders. If a person has shown a life long tendency over many years to disregard social mores and impulsively commits aberrent sexual acts as a part of his general antisocial pattern, by what test can we satisfy ourselves and the court that these proclivities have been altered by hospitalization? While in the hospital the behavior of these individuals may be exemplary and, of course, they have no opportunity to commit sex offenses, other than possibly homosexual ones. How then can one predict when the tendencies are under control? A good example to illustrate this is in the realm of alcoholism. While under lock and key we can keep most alcoholics sober. But I know of no formula by which we can say, "now he won't drink any more." Neither is there any formula by which we can say, "now this man won't rape or molest children any more."

(c) Further, I am surprised no one has raised the question of the constitutionality of this law. It is perfectly possible under this law to commit a person for life for simple exhibitionism. It is a psychiatric observation that the vast majority of exhibitionists do not engage in offenses against the person, and of all sex offenders are the least harmful. Any person may be committed and serve a "sentence" in the hospital far longer than he would have had he been sent to the penitentiary. In fact, this experience in other states (notably the District of Columbia), has resulted in practically no defending lawyer even trying to utilize the sex psychopath law in behalf of his client. I received this information from the assistant superintendent of St. Elizabeth's Hospital in Washington, D. C., with whom I discussed this problem recently.

I would like to make a few remarks about a special problem—our old folks. I need not tell anyone here, or cite statistics to prove that this is one of the most pressing problems of our era and will continue to be more and more of a problem as time passes. I don't believe anyone will argue against the fact that our elder sick and infirm citizens are deserving of our care, and the best care we can afford them. After all, we may get old and feeble ourselves someday.

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* Sections referred to are in Senate Bill 59, approved July 14, 1955.

I would like to make several observations and then a suggested solution.

1. Mental hospitals are not the place to solve the problems of infirmities incident to ageing for the following reasons:

(a) They overload the facilities and detract from the care of the psychotic, neurotic and other psychiatric problems under care.

(b) The older patient is often, in fact usually, far from home and loved ones, which is especially unfortunate for old folks as they are unable to adjust or accept new situations and are often made worse as a result.

(c) Commitment to state hospitals readily becomes a convenient dumping ground for problems which are more difficult to work out on a local level because of the expense of care or a lack of facilities for local care. Once in a mental hospital it is difficult in many cases to get the family or county to take the necessary steps to return the patient home, or to a nursing home, after the patient has quieted down or the condition has changed so that only nursing care is required.

Here I must make one thing clear. Eligibility for nursing home care should have no relation to the mental state of the patient, but should be entirely based on one thing, "is his condition such from a behavior standpoint that he could be cared for at home or in a nursing home." Although I have not made a case by case study of this, it is my estimate at this time that we have at least 200, if not more, patients who could be quite adequately handled in a nursing home, if such provisions were available.

2. Most of our elderly and senile folk are not "just in need of a place to eat and sleep." This is an extremely fallacious opinion that I have heard expressed by many people, even highly educated ones. Among these patients one finds a high percentage of many types of medical and surgical problems, such as high blood pressure, heart disease, arthritis, kidney impairment, diabetes, cancer. The approximate 800 old people in the Fulton State Hospital need all the facilities of medical and surgical care actually more than they need psychiatric care. Their mental impairment is, in most instances, simply another sign of physical enfeeblement, and as soon as the behavior disturbance is under control they should be placed in a situation where their physical problem can be cared for.

This brings me to a suggested solution which probably every county court will object to, I am afraid. The suggestion is this, that every county with a county hospital, or any community hospital facility for medical and surgical care in that county, should provide, by construction if necessary, for a special wing, or several wings, for the care of aged persons who cannot be cared for at home or in the nursing homes. Funds for such construction might be obtained under the Hill-Burton Act, with perhaps additional aid from state funds, as well as local contributions.

This would accomplish several things necessary in the care of old people.

1. It would keep them near home, at least not more than a few miles from family and friends. The importance in the treatment of these people of visits from family and friends I cannot stress too much.

2. It would provide for medical and surgical care as needed by the facilities of the adjoining medical and surgical hospital.

3. It would not over-load the state hospital where recruitment of physicians to care for these large groups of patients is exceedingly difficult, and which, as mentioned before, detracts from the treatment of bona fide psychiatric problems.

4. This plan would provide a local solution to a problem which I am convinced can only be adequately and decently solved at a local level.

5. This would leave the state hospital free to care for that segment of aged people who are such behavior problems that the special facilities of the state hospital alone can handle them. Then, when the problem is brought under control the patient could be transferred back to the local hospital, thus keeping beds constantly available and open for cases that cannot be handled locally. As the situation is now, the mental hospital beds are filled with patients who no longer need special mental hospital facilities, and those who do need them cannot get in and must wait at the bottom of long waiting lists. In some way the state hospital must get patients out the back door in order to continue to admit them in the front door.

Special Article

X-Rays and Other Ionizing Radiation

The Responsibilities of the Medical Profession in Their Use

Statement by the United Nations Scientific Committee on the Effects of Atomic Radiation

1. The United Nations General Assembly, being aware of the problems in public health that are created by the development of atomic energy, established a Scientific Committee on the Effects of Atomic Radiation. This Committee has considered that one of its most urgent tasks was to collect as much information as possible on the amount of radiation to which man is exposed today, and on the effects of this radiation. Since it has become evident that radiation due to diagnostic radiology and to radiotherapy constitutes a substantial proportion of the total radiation received by the human race, the Committee considers it desirable to draw attention to information that has been obtained on this subject.

2. Modern medicine has contributed to the control of many diseases and has substantially prolonged the span of human life. These results have depended in part on the use of radiation in the detection, diagnosis and treatment of disease. There are, however, few examples of scientific progress that are not attended by some disadvantages, however slight. It is desirable therefore to review objectively the possible present or future consequences of increased irradiation of populations which result from these medical applications of radiation.

3. It is now accepted that the irradiation of human beings, and particularly of their germinal tissues, has certain undesirable effects. While many of the somatic effects of radiation may be reversible, germinal irradiation normally has an irreversible and therefore cumulative effect. Any irradiation of the germinal tissues, however slight, thus involves genetic damage which may be small but is nevertheless real. For somatic effects there may however be thresholds for any irreversible effects, although, if so, these thresholds may well be low.

4. The information so far available indicates that the human race is subjected to natural radiation,[1] as well as to artificial radiation due to its medical applications, to atomic industry and its effluents and to the radioactive fall-out from nuclear explosions. The Committee is aware of the potential hazards that such radiation involves, and it is collecting and examining information on these subjects.

5. The amount of radiation received by the population for medical purposes is now, in certain countries, the main source of artificial radiation and is probably about equal to that from all natural sources. Moreover, since it is given on medical advice, the medical profession exercises responsibility in its use.

6. The Committee appreciates fully the importance and value of the correct medical use of radiation, both in the diagnosis of a large number of conditions in the treatment of many such diseases as cancer, in the early mass detection of conditions such as pulmonary tuberculosis, and in the extension of medical knowledge.

7. Moreover, it appreciates fully the contribution of the radiological profession, through the International Commission on Radiological Protection[2] in recommending maximum permissible levels of irradiation. As regards those whose occupation exposes them to radiation, the establishment of these levels depends on the view that there are doses which, according to present knowledge, do not cause any appreciable body injury in the irradiated individual; and also on the consideration that the number of people concerned is sufficiently small for the genetic repercussions upon the population as a whole to be slight. Whenever exposure of the whole population is involved, however, it is considered prudent to limit the dose of radiation received by germinal tissue from all artificial sources to an amount of the order of that received from the natural background radiation.

8. It appears most important therefore that medical irradiations of any form should be restricted to those which are of value and importance, either in investigation or in treatment, so that the irradiation of the population may be minimized without any impairment of the efficient medical use of radiation.

(Continued on page 386)

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[1] The radiation due to natural sources has been estimated to cause between 70 and 170 millirem of irradiation to the gonads per annum in most parts of certain countries in which it has been studied, although higher values are found locally in some areas. See the reports "The hazards to man of nuclear and allied radiations" published by the United Kingdom Medical Research Council in June 1956, in which also the millirem is defined; and from information submitted to the Committee.

[2] See the report of the International Commission on Radiological Protection (published in the *British Journal of Radiology*—Supp. 6, of December 1954; in the *Journal francais d'electro-radiologie,* No. 10, of October 1955, and revised in 1956).

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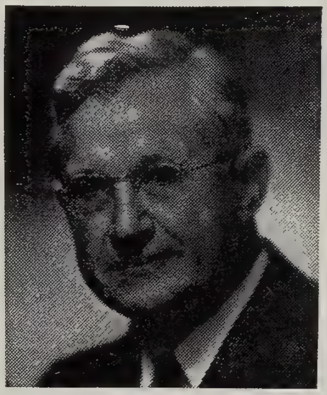
President's Page

Legislation has been introduced on many occasions to permit the self employed to receive a federal income tax deduction when they invest in approved retirement programs. These bills have always been defeated in committee for one reason or another.



Similar legislation is now pending in the Congress in the House Committee on Ways and Means. H. R. 9, introduced by Rep. Jenkins of Ohio, and H. R. 10, introduced by Rep. Keogh of New York, permit a self employed individual to deduct from adjusted gross income an amount not to exceed 10 per cent of net earnings from self employment or $5,000.00, whichever is the lesser, when such individual obtains a retirement income program for himself or payments to his beneficiaries or his estate. Slightly higher deductions are authorized for persons over the age of 50. The total deduction allowed for this purpose could not exceed $100,000.00. Periodic payments made to the taxpayer after age 65 or to his beneficiaries would be treated as ordinary income for tax purposes.

The bills were drafted by a Committee of the American Bar Association. They have been approved by the American Medical Association and other organizations.

A personal letter to your Congressman may help to secure his favorable opinion of the legislation. The names of Missouri Congressmen are listed: District 1, Frank M. Karsten; District 2, Thomas B. Curtis; District 3, Mrs. John B. Sullivan; District 4, George H. Christopher; District 5, Richard Bolling; District 6, W. R. Hull; District 7, Charles H. Brown; District 8, A. S. J. Carnahan; District 9, Clarence Cannon; District 10, Paul C. Jones; District 11, Morgan M. Moulder. Letters should be sent to House Office Building, Washington, D. C.

Carl Vohs M.D.

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Rubraton is indicated for combatting many common anemias and for correcting mild B complex deficiency states. It may also prove useful for promoting growth and stimulating appetite in poorly nourished children. (Not intended for treatment of pernicious anemia.)

Dosage: 1 or 2 teaspoonfuls t.i.d.

Supply: Bottles of 8 ounces and 1 pint.

	1 teaspoonful (5 cc.) supplies:
Elemental Iron (as ferric ammonium citrate and colloidal iron)	38 mg.
Vitamin B_{12} activity concentrate	4 mcg.
Thiamine mononitrate	1.0 mg.
Riboflavin	1.0 mg.
Niacinamide	5 mg.
Pantothenic acid (Panthenol)	1.5 mg.
Pyridoxine hydrochloride	0.5 mg.

Alcohol content: 12 per cent

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EDITORIALS

99th Annual Session

Within a few days the 99th Annual Session of the Missouri State Medical Association will convene—March 31, April 1, 2 and 3. The complete program of the session is carried in this issue of Missouri Medicine, which comes out a few days early in order to give a last minute preview of the session. Special events are included, the Woman's Auxiliary Buffet Dinner and Entertainment Sunday evening, the Maternal Welfare Committee luncheon Monday noon, the dinner meetings of the Committee on Diabetes and the Committee on Civil Defense on Monday evening, the annual luncheon and awards of the University of Missouri Medical Alumni on Tuesday noon, and the Annual Banquet in Honor of Past Presidents on Tuesday evening. Mr. Ethan A. H. Shepley, Chancellor, Washington University, will speak on "Are We Keeping Our Own House in Order?" at the banquet; also the gavel will be presented to the incoming President, Past Presidents will be honored and Fifty Year Pins will be presented to members who complete their fiftieth year of medical practice this year.

It is indeed a meeting that members will not want to miss.

Medical Education Week

The impressive story of the accomplishments of U. S. medical schools will be told to the nation during the second annual observance of Medical Education Week, April 21-27, and the Missouri State Medical Association has been invited by the national sponsors to develop plans for community programs in this area.

The purpose of the observance is to focus the attention of the American people on the national importance and indispensability of medical education. A well organized program of public information will bring about greater friendship and support for the medical schools by creating a better understanding of their aims, problems, achievements and public services.

President Eisenhower, in his personal endorsement of this observance, said, "While the benefits of health and medical education are daily with us, it is fitting to devote a special week to the consideration of the wider training of physicians. Each American has a personal stake in our country's medical schools. The schools which train the physicians required by our growing population are a vital resource for the health of our people and the strength of the Nation."

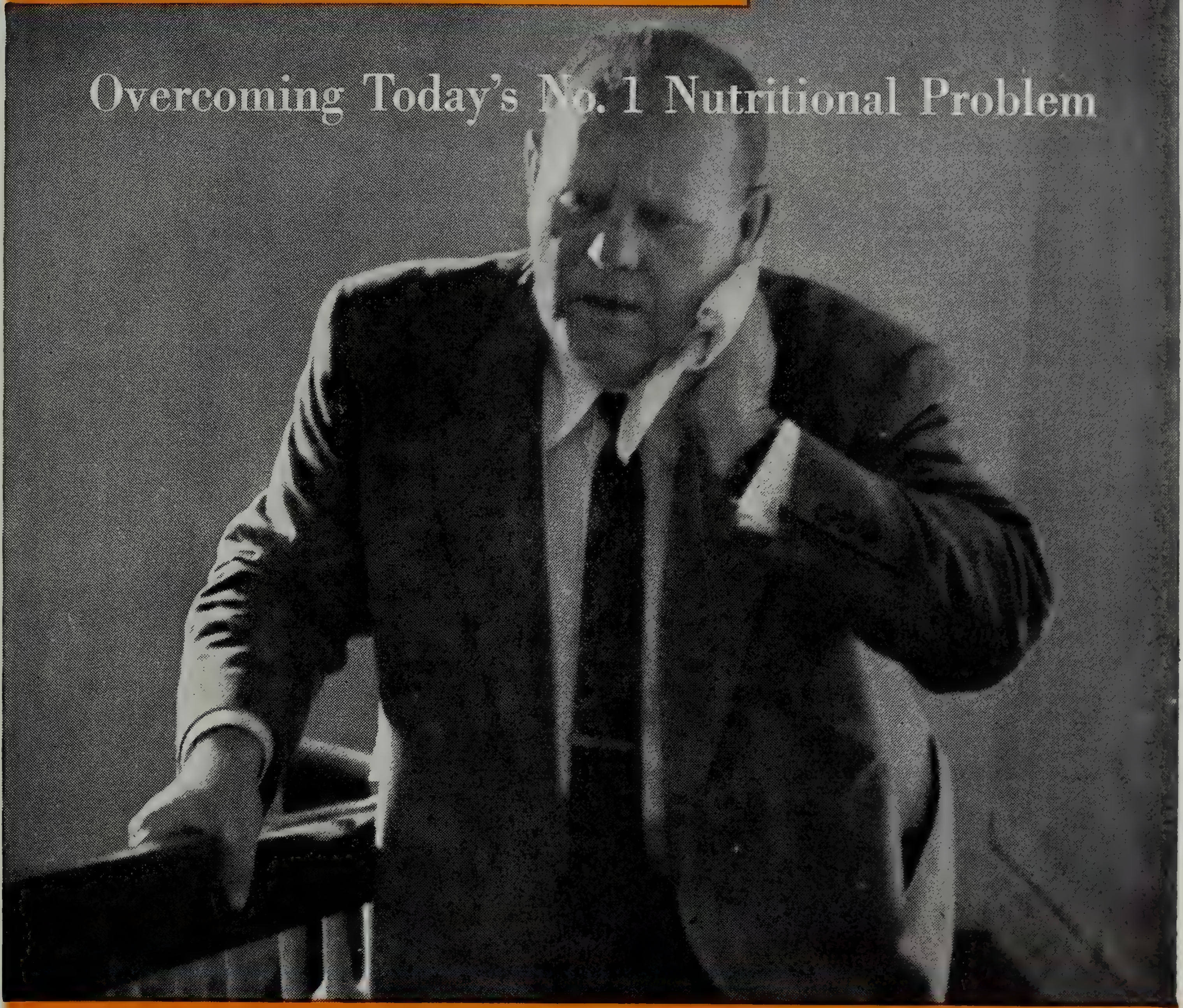
Specific aims of Medical Education Week, if pursued effectively, will demand the participation of a large portion of our members. These are the goals:

1. To portray the key role that medical education plays in the promotion and maintenance of the nation's health and security, and make the public aware that the nation's eighty-two medical schools are the foundation of our entire health and medical structure.
2. To explain how the medical schools are striving to meet the demand for larger numbers of physicians and, at the same time, to maintain the high standards of training that have come to characterize American medical education.
3. To call attention to the steady progress in the medical sciences, showing what this means in terms of longer life, better health and greater freedom from disease and disability.
4. To point out the wide range of activities—teaching, research, service and leadership—carried on by the modern medical school in addition to its job of training new doctors.
5. To make clear the extent and nature of the new challenges to the profession, some growing out of our constantly expanding fund of medical knowledge and some resulting from the mounting complexity of our civilization.
6. To point out some of the steps being taken constantly to push back the horizons of the medical sciences and to realize the full potential of the nation's health resources.

While medical societies and medical schools throughout the country build community programs around these objectives, the national sponsors—the AMA and the Woman's Auxiliary, the Association of American Medical Colleges, the Student AMA, the American Medical Education Foundation, and the National Fund for Medical Education—are enlisting the help of newspaper syndicates, radio and television networks, popular and professional publications, civic groups, industry, and commerce in a broad program of national publicity and promotion.

In view of this fertile opportunity to further the goals of medical education, Dr. James P. Murphy, chairman of the AMEF committee for this society, asks each physician to demonstrate his gratitude to his alma mater by working actively with his planning group to help all eighty-two medical schools win the friendship and support of the public during this Medical Education Week, April 21-27.

KNOX PROTEIN PREVIEWS



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Please send me .... dozen copies of the new illustrated Knox Reducing booklet based on Food Exchanges.

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[1] The Food Exchange Lists referred to are based on material in "Meal Planning with Exchange Lists" prepared by Committees of the American Diabetes Association, Inc., and The American Dietetic Association in cooperation with the Chronic Disease Program, Public Health Service, Department of Health, Education and Welfare.

News

The Division of Health has announced that it plans to send applications for hospital licensing to all hospitals within the next few months and to license hospitals shortly thereafter.

The American College of Radiology elected **Ira H. Lockwood,** M.D., Kansas City, president at a meeting held in Chicago on February 8.

The Missouri State Board of Medical Examiners plans to give its next examination in Jefferson City on June 13 and 14. Applications should be filed thirty days prior to the examination.

Serving as moderator and speaker at a symposium on "Cerebral Vascular Disease and Paroxysmal Disorders and Headache" at the University of Kansas Medical School on February 27 and 28, was **E. Haydn Trowbridge, Jr.,** M.D., Kansas City.

Speaker at the Tenth District, Missouri Division of the American Cancer Society meeting on January 31 was **Martyn Schattyn,** M.D., St. Louis.

Speaker at a meeting of the North Side Citizens Association of Sedalia on February 1 was **A. R. Maddox,** M.D., Sedalia.

The Society of University Surgeons at a recent meeting elected **C. Rollins Hanlon,** M.D., St. Louis, as president-elect. He will take office in 1958.

"The Heart of a Child—Surgical Frontier" was the title of a talk presented by **John H. Mayer,** M.D., Kansas City, before the St. Joseph Sertoma Club on February 6.

Chairman of the Phelps County Centennial Committee, which is in charge of arrangements for the observance this summer, is **E. A. Stricker,** M.D., St. James.

The Fulton Woman's Club had as a speaker at a meeting in January **A. K. Baur,** M.D., Fulton. His subject was "Rehabilitation of Mentally Ill Patients."

One of the instructors at a one-night study session held by the Ninth District Nurses' Association at Hannibal on January 28 was **Thomas W. Burns,** M.D., Columbia.

The principal speaker at a meeting of the Fourscope Society of X-ray Technicians at St. John's Hospital, Joplin, in January, was **Marvin F. Hall,** M.D., Joplin.

"Demyelinating Diseases of the Central Nervous System in Humans and Experimental Animals" and "Neuropathologic and Histochemical Findings of the Central Nervous System in Presenile and Senile Psychoses" will be discussed by **Leon Roizin,** M.D., at the VA Hospital, Jefferson Barracks, on April 19.

The 8th Annual Dr. F. G. Thompson, Sr., lecture will be presented by Curtis P. Artz, M.D., Jackson, Miss., at the Thompson-Brumm-Knepper Clinic, St. Joseph, on May 9. His subject will be "The Use of Parenteral Fluids in Disease, Trauma and Burns as Indicated in Daily Practice."

The Kiwanis Club of St. Joseph had **Allen I. Herman,** M.D., St. Joseph, as their speaker at a February meeting.

The Sorosis Club of Sedalia was addressed by **A. L. Walter,** M.D., Sedalia, at a meeting in January. He spoke on "Beyond the Iron Curtain."

The South Side Rotary Club in St. Joseph had **G. T. Carpenter,** M.D., St. Joseph, as speaker at a meeting in February.

NEW MEMBERS

Allain, J. J., 902 Edmond Street, St. Joseph. Buchanan County Medical Society.

Carlin, Eugene J., M.D., Steele. Pemiscot County Medical Society.

Dixon, C. Harold, M.D., State Hospital No. 1, Fulton. Callaway County Medical Society.

Goldring, Sidney, M.D., 216 S. Kingshighway, St. Louis. St. Louis Medical Society.

Hobbs, George H., M.D., State Hospital No. 1, Fulton. Callaway County Medical Society.

Kimball, Ireland W., 308 E. Second Street, Salem. Mid-Missouri County Medical Society.

Knipschild, B. F., M.D., 307 Odell Street, Marshall. Saline County Medical Society.

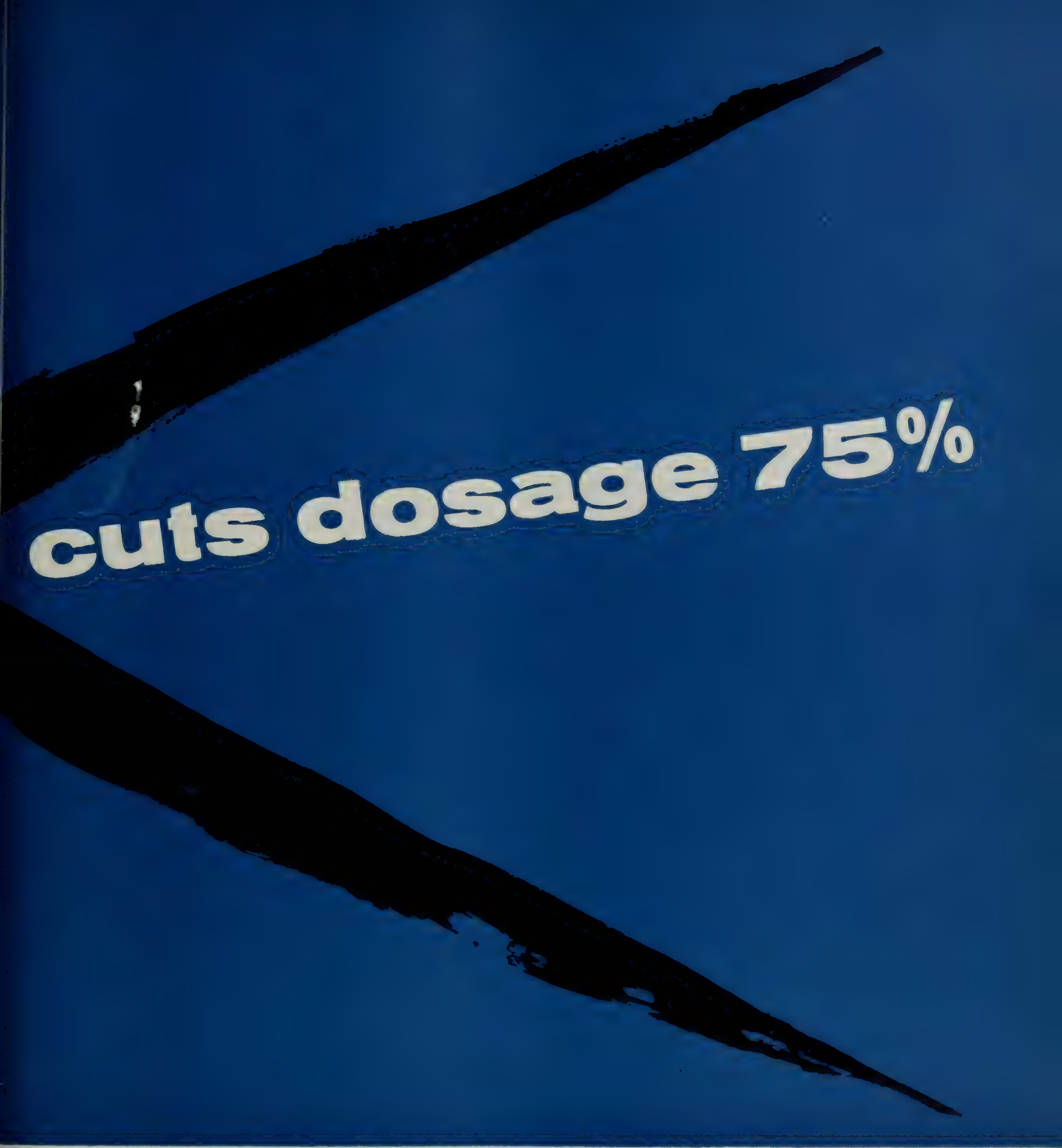
Rommey, Douglas, M.D., 600 S. Kingshighway, St. Louis. St. Louis Medical Society.

Sullivan, Robert L., M.D., 630 S. Kingshighway, St. Louis. St. Louis Medical Society.

GERIATRIC MEDICINE

A postgraduate course in "Geriatric Medicine and the Problems of Later Life" will be conducted by the Washington University School of Medicine, Division of Gerontology, under the sponsorship of the Division of Health of the Department of Public Health and Welfare of Missouri on May 22, 23, 24. The course is designed for all physicians who treat elderly patients. Topics include "Nutritional Aspects of Coronary Disease and Arteriosclerosis," "Management of Peripheral Atherosclerosis in the Aged," "Treatment of Heart Disease in the Older Person," "Treatment of Genito-Urinary Problems in the Aged," "Infections in the Older Person," "Tonics and Sedatives for the Older Person," "Psychiatric and Neurologic Aspects of Geriatrics," "Senile and Arteriosclerotic Psychoses," "Arthritis in the Elderly," "Physical Rehabilitation of the Elderly Person," and others.

Tuition is free and details may be obtained from the Division of Gerontology, Washington University School of Medicine, 5600 Arsenal St., St. Louis 9, Mo.



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SAFETY: KYNEX offers a margin of clinical safety based on low required dosage, solubility, slow excretion rate. Although KYNEX Sulfamethoxypyridazine is a sulfonamide derivative and the usual precautions regarding such drugs should be observed, the low daily dose of 1.0 Gm. is all that is required for the therapeutic blood levels. No increase in dosage is recommended.

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Musings of the Field Secretary

If variety stimulates interest, then some of our county medical societies may well be enjoying increasing attendance at their meetings. More and more local societies are broadening their program offerings to include talks, discussions and demonstrations on non-medical subjects. Apparently there are problems of a non-medical nature which are "crying" for the doctor's attention, thought and action. This is borne out by observing certain programs some medical societies have recently offered: St. Louis County Medical Society program: "Fifteen Minutes After Your Death" with a Trust Company Estate Planning Officer, a Bank Vice President and Trust Officer, a Probate Court Judge and a Chief Clerk and Acting Judge of a Probate Court participating; Lincoln-St. Charles County Medical Society program: "Saving on Income Tax Through Trusts" discussed by a local lawyer; Jasper County Medical Society: "Wills, Estates and Taxation" with four district lawyers participating in a panel discussion; Joint meeting of the St. Louis Academy of General Practice and St. Louis Medical Society program: "The Doctor in the Courtroom" and featuring the thirty minute film "The Medical Witness" with discussions by two widely known and well qualified jurists.

To reiterate—a 16 millimeter sound print of the movie entitled "The Case of the Doubting Doctor" is available at the State Association headquarters office for loan to county medical societies. This documentary color film developed by the A.M.A. is designed to show that medical society memberships are a "good buy." It can answer many members' questions and help settle many misunderstandings about medical organizations, their services and objectives.

Here's what the president of one state medical society wrote the A.M.A. about the film after showing it to a large group of physicians: "The movie, 'The Case of the Doubting Doctor,' was very enthusiastically received. It is not only amusing but very instructive and enlightening. I was amazed that even in such a progressive state group as ours many were not informed of the multiple facets of the A.M.A.'s work in their interest." Probably the most valuable asset of the medical profession is an informed membership and that is what the film aims to achieve. Please make your requests for use of the film as far in advance as possible.

Missouri Medical Meetings

Missouri State Medical Association Annual Session, Kansas City, March 31, April 1, 2, 3, 1957.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Society—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—third Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—fourth Tuesday of each month except June, July and August, at auditorium of General Hospital No. 1.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets only on call.
Johnson County Medical Society—meets only on call.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark-Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Webster County Medical Society—meets only on call.
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

and with One Thing on Top of Another...

FROM **A**-utomobile payments to **Z**-inc ointment purchases,
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e Cross to the hospital. With no opportunity to
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With one thing on top of another vying for the public's
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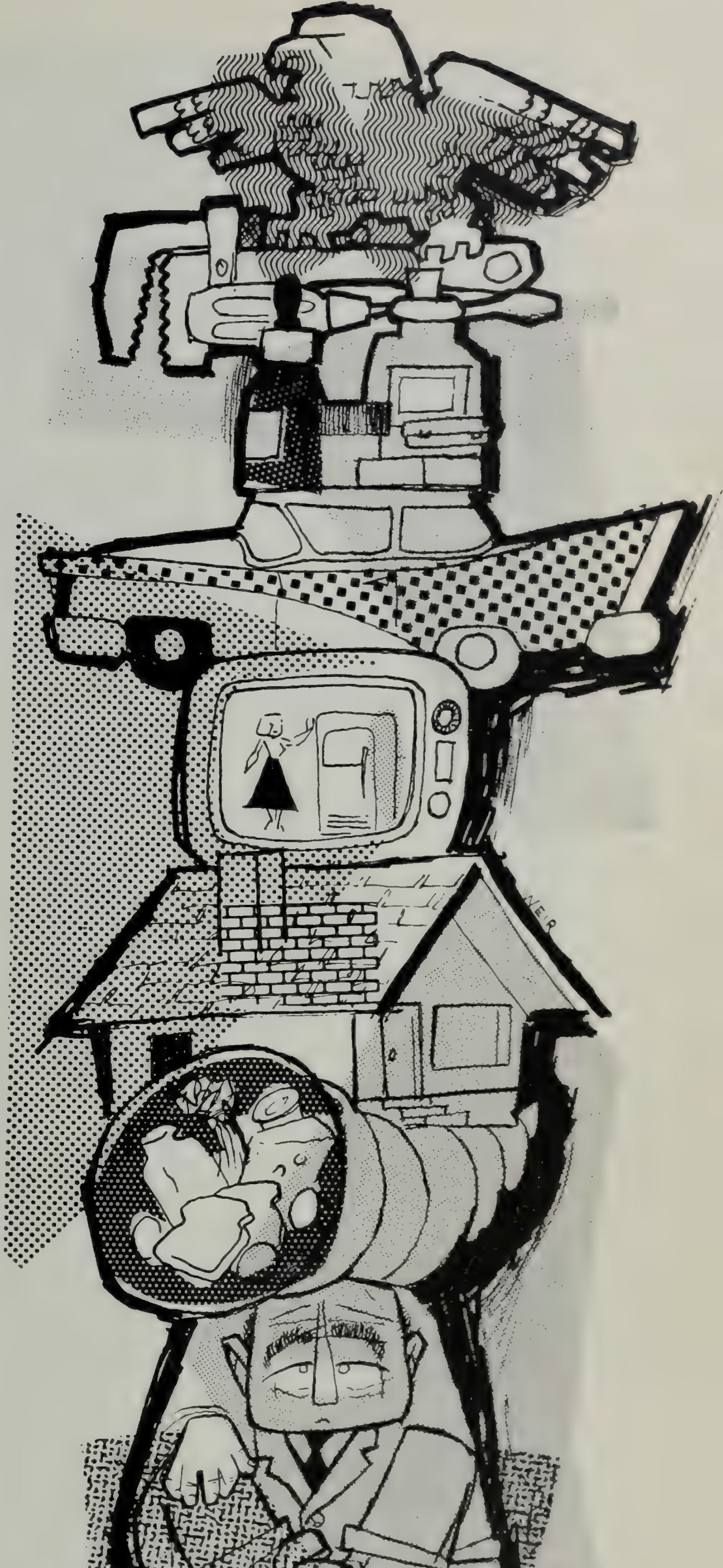
makes Blue Cross and Blue Shield the
outstanding buy in health care prepayment.



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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met February 14 at the Strand Hotel, Chillicothe. There were approximately fifty present, including members, Auxiliary members, visitors and drug representatives. After the dinner, the guests were introduced, and the Auxiliary members went to the beautiful home of Dr. and Mrs. V. D. Vandiver where, it is understood, they had a pleasant evening.

The scientific program was presented by Dr. B. W. Andrews, urologist, Kansas City, who discussed "I Have Urological Problems, Do You?" This was a practical and scientific presentation of an interesting subject. Discussion and questions followed.

Dr. A. S. Bristow resigned as delegate for Mercer County. The Society accepted his resignation with regrets. Dr. F. H. Zahrt was appointed delegate and Dr. J. M. Perry, alternate.

Our Councilor, Dr. D. M. Dowell, spoke of some of the problems that would probably come up at our State meeting in April. On motion by Dr. William A. Fuson, seconded by Dr. W. Ellsworth and carried by unanimous vote, it was decided that our delegates go to the Missouri State Medical Association meeting uninstructed.

The minutes of the last meeting were read and approved. There being no further business, the Society adjourned.

E. A. Duffy, M.D., *Secretary*

Clay County Medical Society

The Clay County Medical Society met in regular session at the St. Luke's Episcopal Church, Excelsior Springs, Tuesday, January 29.

Dr. Hector Benoit, Kansas City, gave a presentation on "Surgical Treatment of Aortic Aneurysms" with several case presentations.

In the business session, Dr. O. S. Pate and Dr. R. H. Hodge were elected as delegates to the Annual Session of the State Medical Association in Kansas City.

A resolution was passed recommending that any polio vaccination program in Clay County be formulated and directed by the Clay County Health Department under supervision of the Director, Dr. Murray Grant. This program is to be approved by the Public Health Committee of the Clay County Medical Society. This resolution was passed because it was felt that the Society should guide local efforts to get as many people as possible immunized against poliomyelitis. It is hoped that a definite program can be underway in the county within the next month.

S. O. Schroeder, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

Dr. W. Deward Chute, Moberly, spoke at a dinner meeting of the Chariton-Macon-Monroe-Randolph County Medical Society at the Woodland Hospital, Moberly, Thursday night, February 14.

His subject was "Review of Present Day Antibiotic Therapy." Dr. Chute presented an interesting and informative discussion on the use of antibiotic drugs and some of the problems pertaining thereto.

Members present included: Dr. Josephine D. Baker, Dr. Chute, Dr. C. C. Cohrs, Dr. J. W. Fleming, Dr. T. S. Fleming, Dr. Robert Hasson, Dr. A. P. Rowlette, Dr. C. C. Smith, Dr. Robert H. Young and Dr. L. E. Huber, Moberly; Dr. J. E. Campbell and Dr. D. E. Eggleston, Macon; Dr. F. L. Harms and Dr. G. W. Hawkins, Salisbury; Dr. P. V. Dreyer, Huntsville; Dr. D. D. Stuart, Brunswick, and Dr. C. C. Weger, Keytesville.

Robert H. Young, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

A called meeting of the Jefferson County Medical Society was held Friday night, February 15, at the County Health Center in Hillsboro. The meeting was called to order at 8:30 p.m. by the President, Dr. Karl McKinstry.

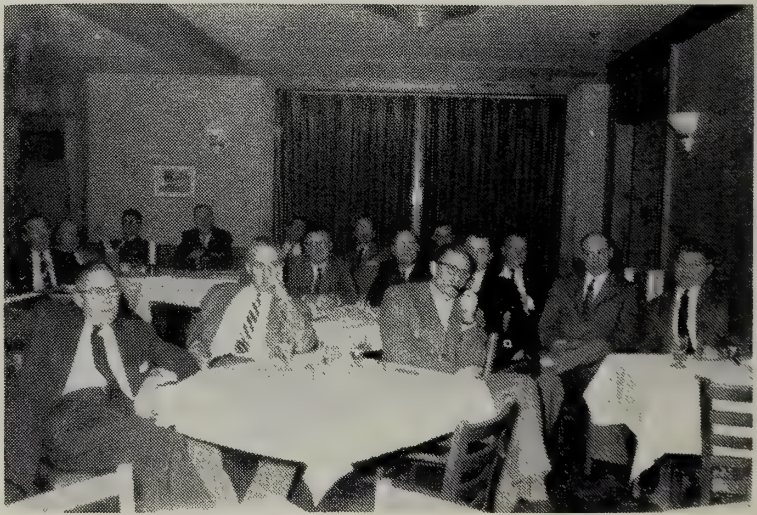
The following doctors were present: B. Bolgar, M.D., Harold Donnell, M.D., R. H. Donnell, M.D., T. A. Donnell, M.D., R. W. Edwards, M.D., G. E. Fallet, M.D., Roger Allbee, M.D., F. L. Kozal, M.D., Karl McKinstry, M.D. and John F. Rutledge, M.D.

A scientific program was presented by Dr. G. Read Boles, St. Louis, a staff member of the Pediatric Department of Washington University, who gave a talk on "Some Pediatric Problems as Seen by the General Practitioner." The talk was well received and was followed by a lively discussion.

John F. Rutledge, M.D., *Secretary*

Lincoln-St. Charles County Medical Society

Dr. B. L. Sinner, St. Louis, spoke before the Lincoln-St. Charles County Medical Society at a dinner meet-



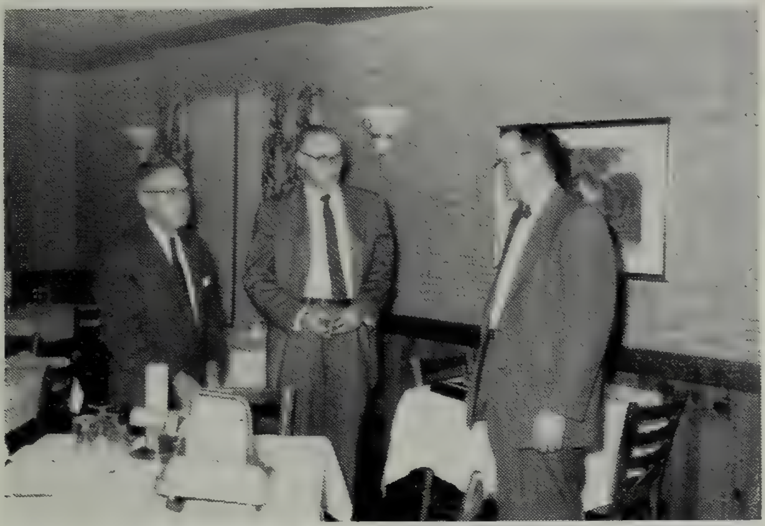
Twenty physicians attended the meeting.

ing at the Southern Air, Wentzville, Thursday night, February 21.

His subject was "The Immediate Surgical Care of Trauma." A lively discussion period was evoked from Dr. Sinner's well developed talk.

Twenty doctors attended the meeting.

Following the scientific program, a business session was held. A number of matters were discussed including polio vaccination programs, Social Security for doctors and medical care of welfare patients. The Society went on record as opposed to the inclusion of doctors under Social Security.



The speaker answered questions after his talk.

Paul Rother, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

A dinner meeting of the West Central Missouri Medical Society and the doctors' wives was held at the Inn Hotel, Butler, Thursday evening, February 14.

Social refreshments and a bountiful dinner added much to the pleasure of the occasion.

The scientific program for the evening was given by Dr. W. P. Bunting, Kansas City, who spoke on "The Management of Some Ear, Nose and Throat Problems in the Office of the General Practitioner."

This program was sponsored by the Missouri Academy of General Practice and offers Category I PG Credit to Academy members who attended.

Robert L. Magee, M.D., *Secretary*

Lafayette-Ray County Medical Society

A dinner meeting of the Lafayette-Ray County Medical Society and its Woman's Auxiliary was held at the Victory Cafe, Lexington, Tuesday night, February 12.

Sixteen persons were present including doctors, their wives and guests.

Following dinner, the ladies retired to the home of Mrs. Joseph Cope for a special Auxiliary meeting with the President of the Woman's Auxiliary to the Missouri State Medical Association, Mrs. Charles Shepherd, Clayton.

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The doctors had no formal program scheduled; however, they made good use of an informal discussion period to talk about a number of issues facing the medical profession on both local and national level. These included local polio vaccination programs, Social Security for doctors, indigent medical care. Mr. Ray McIntyre, Field Secretary of the Missouri State Medical Association, was present and took part in the discussion.

Informal discussions made an interesting program.

Ralph Riley, M.D., *Secretary*

Henry, Johnson, Pettis, Saline and Adjacent County Medical Societies

A joint dinner meeting of the Henry, Johnson, Pettis, Saline and Adjacent County Medical Societies and the doctors' wives was held at the Pacific Cafe, Sedalia, Wednesday night, January 20.

Some sixty-five persons were in attendance.

The evening festivities began with a social hour followed by dinner, then the program.

The scientific presentation of the evening was given by Dr. John R. Rufe, Kansas City, who ably discussed "The Management of Some Common Eye Problems in the Office of the General Practitioner."

Dinner preceded the program.

About sixty-five attended the meeting.

While the doctors were enjoying Dr. Rufe's talk, the ladies were given a treat by the Pettis County Medical Society's Woman's Auxiliary by being guests at a special fashion show arranged under local auspices.

The speaker had an attentive audience.

The meeting broke up slowly.

The next meeting of this group will be held at the Sedalia Air Force Base at the invitation of the Medical Department of the Base. This is scheduled for Wednesday, April 17.

C. G. STAUFFACHER, M.D., *Councilor*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Southeast Missouri Chapter of MAGP

Approximately thirty physicians from Cape Girardeau and surrounding counties attended a postgraduate meeting at the St. Francis Hospital, Tuesday night, February 19.

Formal presentations did not end the meeting.

Drs. Muether and Sinner were the speakers.

This program was sponsored by the Southeast Missouri Chapter of the Missouri Academy of General Practice.

The speakers for the evening were Dr. R. O. Muether, St. Louis, and Dr. B. L. Sinner, St. Louis. Dr. Muether discussed "Medical Emergencies." Dr. Sinner spoke on "The Immediate Surgical Care of Trauma." These were both interesting and practical discussions of subjects quite apropos to the general practice of medicine.

J. H. TROLINGER, M.D., *Secretary*

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MISSOURI STATE MEDICAL ASSOCIATION

The 99th Annual Session of the Missouri State Medical Association will be held at the Municipal Auditorium, Kansas City, March 31, April 1, 2 and 3, 1957.

TIME AND PLACE OF MEETINGS

Sunday, March 31

12:30 p.m. Registration for Delegates, Arena, Municipal Auditorium.
1:30 p.m. House of Delegates, Little Theater, Municipal Auditorium.
3:30 p.m. Reference Committees, Municipal Auditorium, Rooms 204, 206, 402, 404.
6:00 p.m. Social Hour, Buffet Supper, Entertainment, Woman's Auxiliary, Grand Ball Room, Hotel Muehlebach.

Monday, April 1

8:00 a.m. Registration, Arena, Municipal Auditorium.
8:00 a.m. Motion pictures, Little Theater, Municipal Auditorium.
9:00 a.m. Scientific Session, Little Theater.
10:00 a.m. Intermission to View Exhibits.
10:30 a.m. Scientific Session, Little Theater.
12:00 noon. Committee on Maternal Welfare Luncheon, Trianon Room, Hotel Muehlebach.
1:30 p.m. Motion pictures, Little Theater.
2:00 p.m. Scientific Session, Little Theater.
3:30 p.m. Intermission to View Exhibits.
4:00 p.m. House of Delegates, Little Theater.
5:00 p.m. Reference Committees, Municipal Auditorium, Rooms 204, 206, 402, 404.
6:00 p.m. Committee on Civil Defense Dinner, Colonial Room, Hotel Muehlebach.
6:00 p.m. Committee on Diabetes Dinner, Room 361, Hotel Muehlebach.

Tuesday, April 2

8:00 a.m. Registration, Arena, Municipal Auditorium.
8:00 a.m. Motion pictures, Little Theater, Municipal Auditorium.
9:00 a.m. Instruction Courses.
9:45 a.m. Instruction Courses.
10:30 a.m. Intermission to View Exhibits.
11:00 a.m. Scientific Session, Little Theater.
12:00 noon. University of Missouri Medical Alumni Luncheon, Terrace Grill, Hotel Muehlebach.
1:30 p.m. Motion pictures, Little Theater.
2:00 p.m. Scientific Session.
3:30 p.m. Intermission to View Exhibits.
4:00 p.m. Scientific Session.
7:30 p.m. Annual Banquet in Honor of past Presidents, Grand Ball Room, Hotel Muehlebach.

Wednesday, April 3

8:00 a.m. Registration, Arena, Municipal Auditorium.
8:00 a.m. Motion pictures, Little Theater, Municipal Auditorium.
9:00 a.m. Scientific Session, Little Theater.
10:30 a.m. Intermission to View Exhibits.
11:00 a.m. Scientific Session, Little Theater.
12:00 noon. Intermission.
1:30 p.m. House of Delegates, Little Theater.

GENERAL SESSION

Monday, April 1, 1957, Little Theater, Municipal Auditorium

8:00 a.m. Motion Picture: The Physiology and Conduct of Normal Labor.

CARL F. VOHS, M.D., St. Louis, Presiding

9:00 a.m. Practical Application of the Laboratory in Diabetes Mellitus, Thomas W. Burns, M.D., Columbia.

9:30 a.m. Therapy of Malignant Lymphomas, Henry D. Diamond, M.D., New York, N. Y.

Too often the clinician, faced with a patient who is diagnosed as having Hodgkin's disease, delivers an unfavorable prognosis to the immediate family. When neurologic complications arise in such patients, the same clinician pronounces the prognosis as ominous or hopeless. In order to substantiate our clinical impression that neither was such a diagnosis necessarily unfavorable, nor the neurologic sequelae necessarily hopeless, the records of all patients with pathologically proved Hodgkin's disease at the Memorial Center for Cancer & Allied Diseases were reviewed and the nervous system sequelae analyzed from the standpoint of frequency of occurrence, pathogenesis, patho-physiology, diagnosis, treatment and end results of treatment. Records of 1,583 patients were so analyzed and 202 patients were found to have had one or another form of nervous system sequelum. A respectable salvage rate of patients with neurologic sequelae was effected.

10:00 a. m. Intermission to View Exhibits.

W. J. SHAW, M.D., Fayette, Presiding

10:30 a. m. Diagnosis and Treatment of Common Skin Disorders, Sture A. M. Johnson, M.D., Madison, Wis.

There are several skin disorders which can be considered common. Probably dermatitis venenata or contact dermatitis is the most common skin disorder for which patients seek help. Diagnosis and treatment will be discussed. Recent advances in the therapy of seborrhea will be discussed as well as those of superficial ringworm infections and psoriasis with its unconformity. The therapy of acne vulgaris will be outlined. Two diseases of the aging skin, namely, seborrheic and senile keratoses, will be differentiated and the treatment outlined. Warts of various types will be demonstrated along with the types of therapy which might be utilized. Kodachrome slides will show the various conditions and suggested treatment.

11:00 a. m. Ovarian Carcinoma: Diagnosis and Treatment, Stuart Abel, M.D., Chicago, Ill.

11:30 a. m. Treatment of Cancer of the Cervix, J. A. del Regato, M.D., Colorado Springs, Colo.

12:00 noon Committee on Maternal Welfare Luncheon, Trianon Room, Hotel Muehlebach.

COMMITTEE ON MATERNAL WELFARE

LUNCHEON MEETING

Monday, April 1, 1957, 12:00 noon

Trianon Room, Hotel Muehlebach

JOSEPH L. JOHNSTON, M.D., Springfield, Presiding

Discussion of Cases of Maternal Deaths Due to Toxemia.
Report of the Committee on Maternal Welfare.

GENERAL MEETING

Monday, April 1, 1957, Little Theater, Municipal Auditorium

1:30 p. m. Motion picture: The Medical Witness.

M. PINSON NEAL, M.D., Columbia, Presiding

2:00 p. m. Surgical Considerations of Acquired Diseases of the Aorta: Analysis of 500 Cases, Michael E. De Bakey, M.D., Houston, Texas.

2:00 p. m. Panel on Pediatrics.
F. R. Crouch, M.D., Farmington, Moderator.
Colic, Peter G. Danis, M.D., St. Louis.
Streptococcic Infections, J. A. Kinder, M.D., Cape Girardeau.
Diarrhea, Ned W. Smull, M.D., Kansas City.
Use of Antibiotics and Sulfas, Walter R. Hepner, M.D., Columbia.
Question and Answer Period.

3:30 p. m. Intermission to View Exhibits.

4:00 p. m. House of Delegates.

COMMITTEE ON DIABETES

DINNER MEETING

Monday, April 1, 1957, 6:00 p.m.

Room 361, Hotel Muehlebach

HENRY E. OPPENHEIMER, M.D., St. Louis, Presiding

Business Meeting.

Some Aspects of Diabetes Diagnosis, G. B. Lemmon, Jr., M.D., Springfield.

Relative Importance of Duration and Control in the Development of Diabetic Retinopathy in Juvenile Patients, Robert L. Jackson, M.D., Columbia.

The Natural History of Plantar Ulcer in Diabetes, William H. Olmstead, M.D., St. Louis.

COMMITTEE ON CIVIL DEFENSE

DINNER MEETING

Monday, April 1, 1957, 6:00 p.m.

Colonial Room, Hotel Muehlebach

CURTIS H. LOHR, M.D., St. Louis, Presiding

7:00 p. m. Opening Remarks, Carroll P. Hungate, M.D., Kansas City, Chairman, Committee on Civil Defense, and James R. Amos, M.D., Jefferson City, Director, Division of Health.

7:10 p. m. The Medical Care of Mass Casualties, Colonel Joseph R. Schaeffer, MC, USA, Chief, Department of Atomic Casualties Studies, Walter Reed Institute of Research, Washington, D. C.

7:50 p. m. Question and Answer period.

8:00 p. m. The Biological Effects of Atomic Radiation, Dr. Albert W. Bellamy, Professor of Zoology and Biophysics, University of California, Los Angeles, Moderator.

Panelists: Dr. Paul Tompkins, Scientific Director, U. S. Navy Radiological Laboratory, San Francisco.
Dr. Victor P. Bond, Medical Department, Brookhaven Laboratory, Upton, Long Island, N. Y.
Mr. Benton Killian, Radiological Laboratory, Region 4, Federal Civil Defense Administration, Battle Creek, Mich.

Adjournment.

INSTRUCTION COURSES

Tuesday, April 2, 1957, Municipal Auditorium

8:00 a. m. Motion picture: Grand Rounds: Acute Abdominal Problems.

9:00 a. m. Instruction Courses.

The Menopausal Patient, H. C. Willumsen, M.D., St. Joseph.

Discussion will encompass the physiology of the menopause, the normal changes that may be expected to occur; and a discussion of the pros and cons regarding therapy in this age group with particular reference to the gynecologic aspect.

Office Proctology, Mark M. Marks, M.D., Kansas City.

Although much has been written about the office care of anorectal disease, the limitations and pitfalls that may be encountered are not well recognized. This phase of proctology will be stressed and illustrated with colored slides.

The Neurologic Examination, William P. Williamson, M.D., Kansas City, Kansas.

A demonstration of a routine neurologic examination will be presented with discussion of interpretation of the findings.

Electrocardiograph Interpretation, Michael Bernreiter, M.D., Kansas City.

The normal conduction mechanism of the heart will be described. The right and left ventricular pattern, as well as the ventricular cavity pattern on that basis will be shown. The changes which occur with injury, ischemia and death of the myocardium will be explained. The importance of the electrocardiogram in the diagnosis of posterior and anterior myocardial infarction will be stressed.

Jaundice, William A. Knight, Jr., M.D., St. Louis.

A brief summary of the differential diagnosis of jaundice by history, physical examination and laboratory studies will be presented. Newer concepts of bilirubin metabolism and the reliability of liver function studies will be discussed.

9:45 a. m. Instruction Courses.

Hypertension, James P. Murphy, M.D., St. Louis.

A brief classification of hypertension will be given with emphasis on the types of hypertension. The necessary work-up in a given case will be reviewed with special attention to the need for tests of renal function and others. The various therapeutic agents available in the modern treatment will be mentioned, and some of the advantages and disadvantages discussed.

Obstetric Emergencies, Joseph L. Johnston, M.D., Springfield.

Obstetric emergencies usually come with unexpected suddenness and must be met promptly. Hemorrhage is the number one emergency. It produced 43 per cent of the obstetric deaths occurring in Missouri during the last three years. Massive blood loss may occur postpartum or from uterine rupture, abruptio placenta, placenta previa, inversion of the uterus, ruptured ectopic pregnancy, incomplete abortion and afibrinogenemia. Adequate and immediate blood replacement must be given with care to avoid transfusion reactions. Eclampsia, anesthetic accidents, cardiac disease, prolapsed cord, and pulmonary embolism are other obstetric emergencies to be discussed.

Treatment of Common Foot Conditions, Paul W. Meyer, M.D., Kansas City.

The Patient With a Painful Back, Ralph K. Earp, M.D., St. Louis.

Fluid and Electrolyte Balance, Harry Statland, M.D., Kansas City.

In the prevention and treatment of fluid imbalances it is necessary to order fluids with a view to correction of abnormalities of volume, concentration and acid-base imbalance. A brief review of normal fluid structure and its distortions will be presented. The fluid therapy for correction of these abnormalities will be covered in open discussion.

10:30 a. m. Intermission to View Exhibits.

GENERAL MEETING

Tuesday, April 2, 1957, Little Theater, Municipal Auditorium

R. E. BREUER, M.D., Newburg, Presiding

11:00 a. m. Goiter Problems Encountered in Everyday Practice, Robert W. Bartlett, M.D., St. Louis.

Emphasis is placed on the means of identifying accurately the various types of goiters encountered in daily practice since the treatment to be recommended depends on the classification. Specifically the problems associated with the proper handling of the colloid, diffuse toxic and the adenomatous nodular goiter are discussed as well as the identification and management of acute thyroiditis. The means of separating the victims of functional nervousness from thyrotoxic patients are reviewed. Consideration is given the proper handling of patients with a goiter plus another unassociated major lesion. Data regarding the use and abuse of radioactive iodine in thyroid disease is presented.

11:30 a. m. Medical Problems of Aging and Long Term Illness, H. B. Mulholland, M.D., Charlottesville, Va.

Statistics will be given regarding the magnitude of the problem with predictions for the future. The age group over 65 years is increasing twice as rapidly as the general population. The physician's responsibility in regard to aging and chronic illness should continue wherever possible—the difficult efforts in the realm of primary prevention and searching our new sources of secondary prevention. Figures will be given on the number of disabled in the general population over 65 years of age. The most common conditions encountered are cardiovascular diseases, renal disease, arthritis and nervous and mental disease. The place of homes, long term hospitals, the nurse, the physician and the problems involved will be discussed.

12:00 noon University of Missouri Medical Alumni Luncheon, Terrace Grill, Hotel Muehlebach.

UNIVERSITY OF MISSOURI MEDICAL ALUMNI ASSOCIATION

LUNCHEON MEETING

Tuesday, April 2, 1957, 12:00 noon

Terrace Grill, Hotel Muehlebach

FRANK G. MAYS, M.D., Washington, Presiding

Presentation of Scrapbook to M. Pinson Neal, M.D., Columbia.

Mr. Frank Eschen, St. Louis, Director, Special News Events, KSD-TV, Speaker.

Awarding of the University of Missouri Annual Certificate of Merit to an Outstanding Medical Alumnus, Dan G. Stine, M.D., Columbia, recipient. Presentation by Mr. Eschen.

GENERAL MEETING

Tuesday, April 2, 1957, Little Theater, Municipal Auditorium

1:30 p. m. Motion picture: The Case of the Doubting Doctor.

VICTOR E. SCHERMAN, M.D., St. Louis, Presiding

2:00 p. m. Implications of Inflation for Medical Economics, Leonard W. Martin, Ph.D., Chicago, Ill.

After reviewing briefly the meaning of inflation, its duration and its sources, its implications for physicians will be examined. Inflation impinges upon physicians in at least three important areas of their activity: in their relationship as a professional group toward the general public centering around the behavior of their prices relative to that of other prices; secondly, focuses excessive attention on fee schedules; debtor-creditor relationships under inflation affects physicians both as businessmen and as citizens.

2:30 p. m. Citizen-Doctor, Thomas H. Alphin, M.D., Washington, D. C.

The American physician is almost the sole remaining symbol of the free, self-sufficient citizen standing alone without support from government subsidy. In this capacity his preservation is much more important for what he represents and maintains than for what he himself is. Throughout the history of our nation, physicians have been a part of and leaders in representative government. We must not now refuse to participate in government for to do so is to show loss of faith and the faith of the people is the most important and necessary resource of any government.

3:00 p. m. The Present Status of Anticoagulants, William T. Foley, M.D., New York, N. Y.

The leading cause of death and invalidism in persons over 50 is thromboembolism. For the first time, a means of attacking this problem directly came to the attention of physicians with the advent of heparin and coumarin derivatives. During the last twenty-five years every conceivable type of thromboembolism has been treated with anticoagulants or attempts at prophylaxis have been made. In some conditions the use of these drugs was disastrous, as in subacute bacterial endocarditis. In other conditions, they have been life saving. A summary of each disease and the effects of anticoagulant administration evaluated.

Cerebrovascular disease poses a challenge. More than 95 per cent of all strokes are due to thrombosis or embolism. Clinical research is being conducted in various centers, including the author's clinic, in an attempt to evaluate the role that anticoagulants should play in the management of cerebrovascular disease. The technic of administration of these drugs has undergone considerable change. Antidotes have been improved and will be discussed.

3:30 p. m. Intermission to View Exhibits.

MICHAEL S. WEPPRICH, M.D., Washington, Presiding

4:00 p. m. Clinical Pathologic Conference, Victor B. Buhler, M.D., Kansas City, Moderator.

ANNUAL BANQUET IN HONOR OF PAST PRESIDENTS

Tuesday, April 2, 1957, 7:30 p.m.

Grand Ballroom, Hotel Muehlebach

CARL F. VOHS, M.D., St. Louis, Presiding

Introduction of Guests.
Presentation of Past Presidents.
Presentation of 50 Year Pins.
Installation of the President, Walter S. Sewell, M.D., Springfield.
Presentation of Past President's Key.
Are We Keeping Our Own House in Order?, Mr. Ethan A. H. Shepley, St. Louis, Chancellor, Washington University, St. Louis.

GENERAL MEETING

Wednesday, April 3, 1957, Little Theater, Municipal Auditorium

8:00 a. m. Motion Pictures: Principles of Fracture Reduction. Metabolic Insufficiency Syndrome; Diagnosis and Treatment.

ROY W. PEARSE, JR., M.D., Nevada, Presiding

9:00 a. m. Maxillo-facial Injuries, Clifford L. Kiehn, M.D., Cleveland, Ohio.

Emergency surgery of trauma of the face is too often delegated to junior members of the resident staff in the emergency ward of the hospital. Facial lacerations are too often closed in one layer with improper instruments and suture material, resulting in an ever widening scar. Certain principles of wound closure, pertaining to proper debridement and direction of closure resulting in less conspicuous scars will be shown. Methods of open reduction of facial fractures which eliminate all external cumbersome traction apparati will be discussed.

9:30 a. m. Chest Injuries, John H. Mayer, Jr., M.D., Kansas City.

10:00 a. m. Cord Injuries, George L. Hawkins, Jr., M.D., St. Louis.

10:30 a. m. Intermission to View Exhibits.

WYETH HAMLIN, M.D., Palmyra, Presiding

11:00 a. m. Panel: The Multiple Injury Patient, O. P. Hampton, Jr., M.D., St. Louis, Moderator.
Panelists: Howard E. Snyder, M.D., Winfield, Kansas.
Herbert A. Hamel, M.D., Kansas City.
Leonard T. Furlow, M.D., St. Louis.
Clifford L. Kiehn, M.D., Cleveland.

1:30 p. m. House of Delegates.

SCIENTIFIC EXHIBITS

Professional Educational Materials, Missouri Tuberculosis Association.

Myelography in Intraspinal Lesions, Robert W. Forsythe, M.D.; Gerhard W. Schottman, Jr., M.D.; Herbert H. Virden, M.D., and Francis A. Carmichael, Jr., M.D., Kansas City.

Home Treatment in Physical Therapy, Western Missouri Chapter, American Physical Therapy Association.

The Missouri Medical Assistants, The Missouri State Medical Secretaries and Assistants Society.

Modern Vascular Headache Management, Robert E. Ryan, M.D., St. Louis.

X-Ray Exhibit of All Patients of Missouri State Sanatorium as of March 1, 1957, C. A. Brasher, Medical Director and Staff, Mount Vernon.

Iron Deficiency Anemia, H. O. Loyd, M.D., Jefferson City, and John F. Lowney, M.D., Columbia, Department of Hematology, University of Missouri Medical School.

Effect of Prophylaxis on Rheumatic Heart Disease, Department of Health, Education and Welfare, Public Health Service, Paul Waitt, M.D.

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Tuberculosis is still a great problem when diagnosis is delayed and the disease has progressed. But experts agree that medical science has surely gained the upper hand . . . through earlier detection, improved surgery and the anti-tuberculosis drugs. These advances have reduced tuberculosis from first to sixth place among the ten leading causes of death.

Obviously, the job is far from ended. Hospitals, universities and research laboratories the world over are searching constantly for more effective medicines of potential value in treating this once-deadly disease.

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TIME * LIFE * TODAY'S HEALTH * POST

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The ad points out that, thanks to earlier detection, improved surgery and the anti-tuberculosis drugs, tuberculosis has fallen from first to sixth place among the ten leading causes of death.

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In short, we're continuing to tell your patients that prompt and proper medical care may well turn out to be the biggest bargain ever to come their way.

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* *Now in eye-catching color in* LIFE, TIME, SATURDAY EVENING POST *and* TODAY'S HEALTH.

TIME * LIFE * TODAY'S HEALTH * POST

Legislation

Bills Affecting the Practice of Medicine and the Public Health in the 69th General Assembly of Missouri

A total of 672 bills were introduced in the Missouri Legislature up to March 1. That date was the final one for introduction of Senate bills. The closing date for the introduction of House bills was March 15.

The summaries provided are necessarily brief; however, they do give the main points about the bills involved and the status at the time MISSOURI MEDICINE closed. For further information, please write the state office or, better still, contact your own State Senator or State Representative.

Miscellaneous Legislation

H. B. 98 creates a commission of nine persons to study problems of the aging. The House Committee on Social Security has recommended "Do pass."

H. B. 150 and H. B. 263 revise the "Chiropody Act." Chiropody is redefined to include diagnosis of foot ailments and allows use of drugs and medicines for foot ailments. It is in the House Committee on Public Health.

S. B. 41 provides for licensing and inspection of nursing homes. This bill has passed the Senate and is now in the House Committee on Public Safety.

S. B. 115 relates to narcotic drugs. It changes the law so that state and federal laws will conform in requirements relating to prescriptions. At present, state law requires a written prescription for certain narcotic drugs, whereas the federal law was changed to permit oral prescriptions in late 1955. This bill is now in the Senate Committee on Criminal Jurisprudence.

S. B. 258 and H. B. 340 provide for an increase in salary for the Director of the Division of Health. The House Bill further changes the law so that Missouri citizenship is not required in the appointment of the Director. S. B. 258 is in the Senate Committee on Public Health and H. B. 240 has not been referred.

S. B. 235 relates to research studies conducted under the auspices of the State Division of Health. Information obtained through such studies is not admissible as evidence in actions before any court. This is in the Senate Committee on Public Health.

S. B. 277 states that it is unlawful for any person to receive, to offer to pay, or to offer to receive, any rebate or commission because of the referral of a patient to another licensed person for the purpose of obtaining medical, surgical or dental diagnosis, care, treatment or service. (Fee splitting is made unlawful.) A second section of the act appears to make it unlawful to dispense drugs or provide x-ray or laboratory services unless performed in a hospital. The bill was not referred to a committee at the time of introduction.

Vendor Payments

S. B. 40 deals with public assistance benefits. This act implements Public Law 880, adopted by the Congress in 1956. That act provided for federal grants to the states for medical care of public assistance recipients. A formula is set out in the law stating that such grants, when pooled with the matching state funds, shall be paid to the vendors of medical care. Vendors are physicians, dentists, hospitals, druggists and others. Senate Bill 40 designated the State Division of Welfare as the agency to handle the program in Missouri. It is in the Senate Committee on Public Health.

S. B. 58 is a companion bill to Senate Bill 40. It authorizes the Division of Welfare to appoint advisory committees to assist the Division in setting up rules and regulations regarding the vendor and other welfare programs. This is in the Senate Committee on Public Health.

H. B. 62 implements Public Law 880, as does Senate Bill 40. It provides for pensions to the blind to conform with the federal Social Security Act and in addition, payments may be made to vendors for the purpose of providing necessary medical care. It is in the House Committee on Pensions.

H. B. 103 and H. B. 104 deal with pensions for the blind to implement Public Law 880 in regard to payments to vendors. They have passed the House and are now in the Senate Committee on Public Health and Welfare.

Mental Health

S. B. 7 provides that the superintendent of a state mental hospital may place certain patients in a boarding or rest home. This is in the Senate Committee on Mental Health.

S. B. 53 provides changes in commitment procedures for state mental hospitals. These changes have been approved by the Association's Committee on Mental Health. It is in the Senate Committee on Judiciary.

S. B. 59 and S. B. 60 provide for establishment of a commission on mental health, at least three of whom shall be physicians, skilled in the treatment of nervous and mental diseases. Among other duties, the commission shall appoint the director of the Division of Mental Diseases. The bills increase his annual salary to $15,000. These bills have passed the Senate and are in the House Committee on Eleemosynary Institutions.

H. B. 49 is similar to Senate Bill 59 except that it requires the governor to appoint the Director of the Division of Mental Diseases, who shall be a physician, and sets his salary at $15,000 annually. This is in the House Committee on Governmental Reorganization.

Dealing With Eye Care

S. B. 26 relates to optometry. Physicians and surgeons are exempt from the terms of the act just as they are at present. The bill seeks to prevent corporations from practicing optometry. Other persons may not employ optometrists if they make a profit from his services; nor may corporations or other persons advertise eye examinations or the sale of glasses in an unethical manner. This is in the Senate Committee on Public Health.

S. B. 241 seeks to establish a board of examiners to license dispensing opticians. The powers and duties of the board are defined. Dispensing opticians fill the eyeglass prescriptions of opthalmologists. This is in the House Committee on Public Health.

Recent Advances

In Feeding Prematures

Recent metabolic studies have established rational feeding procedures for prematures.

The initial feeding, 12 hours after birth, consists of one dram of 5 per cent dextrose. This solution is increased by one dram at 2-hour intervals if tolerated and retained.

After twenty-four hours, breast milk or formula (table below) gradually replaces the prelacteal feeding at 2-hour intervals. The volume of a feeding may be increased up to 2 drams daily until maintenance caloric requirements are fulfilled by the fifth day. If the infant shows signs of intolerance, the formula increase is made more slowly and the fluid requirement fulfilled parenterally.

Successful feeding mixtures consist of dilutions of powdered half-skimmed or evaporated whole cow's milk, skimmed or whole lactic acid milk. These formulas contain high protein, moderate carbohydrate and low fat, yielding about 120 calories and 150 cc. fluid per kgm. body weight.

The problems of prematures are always the same but the solutions differ with each era. Today the moderate carbohydrate requirement for normal infants as well as prematures is fulfilled by KARO® Syrup as adequately as a generation ago. Whatever the type of milk adapted to the infant, KARO may be added confidently because it is a balanced mixture of lower sugars resistant to fermentation, non-laxative, easily assimilated and well tolerated by all infants.

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Water	12 oz.
KARO	1 oz.
Evaporated milk	3 oz.
Water	15 oz.
KARO	1 oz.
Dried milk (half-skimmed)	4 tbsp.
Water	18 oz.
KARO	1 oz.

Feedings: 1½ oz. x 12 x 2 hours
Measures: 1 oz. KARO = 2 tablespoons
Caloric values: KARO, 120 per oz.; Cow's milk, 20 per oz.; Evaporated milk, 45 per oz.; Dried milk (½ skimmed), 35 per oz. (Vol.).
Equivalents: Red Label KARO or Blue Label KARO may be used interchangeably in all formulas.

Adapted from Nelson's Pediatrics, Saunders, Phila. 1954

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APPRECIATION TO DR. VOHS EXPRESSED

Missouri Medical Service Board of Trustees, at a meeting on February 24, adopted the following resolution:

WHEREAS, Dr. Carl F. Vohs is recognized as the one man most instrumental in the establishment of the Blue Shield Plan of St. Louis, and

WHEREAS, Dr. Vohs, having steadfastly carried through his efforts to bring this voluntary prepayment medical program to this area in the face of great obstacles, has faithfully and well served as president of Missouri Medical Service since its inception in 1944, and

WHEREAS, He now feels he should relinquish the post of president in favor of continuing service as a member of the Board of Trustees, and

WHEREAS, He is a man most deserving of the honor and gratitude of the physicians and the public of this area for his devoted service to them, therefore be it

Resolved, That this resolution be inscribed on the permanent and enduring records of the Blue Shield Plan of St. Louis

—in recognition of the long and untiring service of Carl F. Vohs, M.D., in behalf of the Blue Shield movement

—as an expression of the appreciation of the medical profession for his efforts in advancing the practice of medicine, and of the people of this area for his part in making this program available for their protection

—and as a token of the esteem and real affection of those who have been privileged to work with him through the years.

SOUTHEAST MISSOURI HOSPITAL

Autumn 1957 will mark a date the physicians and many other civic minded members of Cape Girardeau, Missouri, will long remember. At that time the new addition to the voluntary non-profit Southeast Missouri Hospital will be dedicated and occupied. This 77 bed, $1,022,000 addition to the existing 72 bed institution established in January 1928 will be the first major expansion of hospital facilities in the community since 1938 when a wing was added to the St. Francis hospital.

For several years there has been an acute shortage of hospital beds in the community. This coupled with the fact that all service areas of the existing building were too small, prompted in 1954 a capital fund campaign spearheaded by the medical staff. The community responded to the request for expanded and modernized health facilities with cash and pledges in the amount of $485,000. In the fall of 1955 the Hospital Advisory Council allocated $5,141,000 Hill Burton funds for the project and in December 1955 a Ford Foundation grant of $36,300 was announced.

Special features of the new addition include:

All patient rooms "climate conditioned"; each will have thermostat to control the volume of heat—or cooling—desired by the occupant. Also each patient room will have connecting toilet and lavatory, nurse to patient and patient to nurse intercommunication system, and recessed cabinet with locker and drawer space. (Most patient rooms will have adjustable height beds and oxygen outlets.)

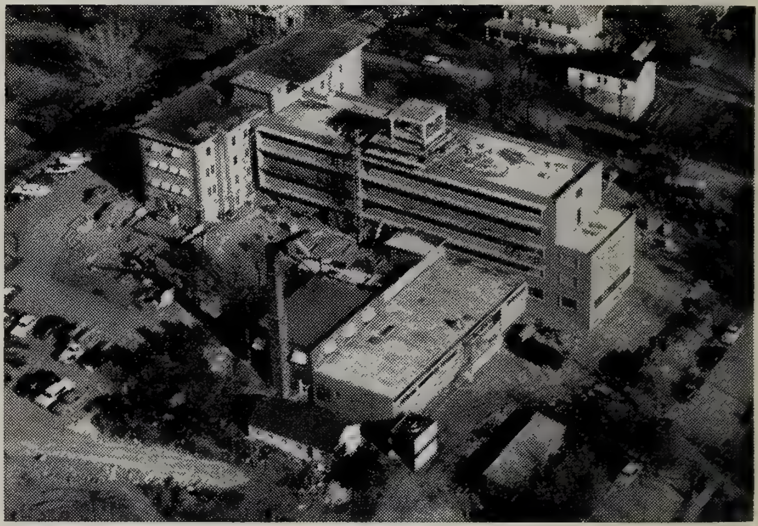
Private dining room for use of ambulatory patients. Also snack bar for patients and guests.

Family reception room on each floor. Meditation room for use of ministers and guests on first floor.

Three operating rooms—each of ample size for any type of major surgical procedures; also a cysto room.

Six bed recovery room as an integral part of operating suite.

Emergency room on same level with and adjacent to operating rooms, laboratory and x-ray.



Private corridor to the x-ray department to shield the patient from traffic through a public passageway.

Public entrance to hospital on grade protected from weather by canopy.

Two patient rooms treated with acoustical material for the noisy or confused patient.

Treatment and examining room on each floor.

A retiring room for use of the medical staff adjacent to the maternity division.

Looking to the future the new addition is designed to carry a fifth floor when additional patient beds are needed. The elevator shaft has been extended to the roof to reduce the expense of the future patient area. Until such time as this is needed a roof solarium is under consideration. Mindful of the tornado of 1949 all doors to the administrative offices and reception rooms are the same width as in patient rooms. If disaster should strike again forty to fifty beds could be placed in these areas.

INDUSTRIAL MEDICAL ASSOCIATION TO MEET

The Industrial Medical Association will hold its annual meeting as part of the Industrial Health Conference, convening at Kiel Auditorium, St. Louis, April 22 to 25. Richard Sutter, M.D., is local chairman of the Industrial Health Conference, and William L. Macon, M.D., is general chairman of the Industrial Health Association meeting. Douglas A. Ries, M.D., is chairman of the program committee; R. Emmett Kelley, M.D., chairman of scientific exhibits, and John Berry, M.D., chairman of the banquet committee.

Two hospital clinics will be held the first morning of the session, one on "Occupational Disease and Trauma of the Chest" at St. Louis University School of Medicine, and one on "Burns" at Washington University School of Medicine. The afternoon session will be a general session as will the remainder of the meeting, dealing with problems incidental to occupational conditions. Members are invited to attend the session.

frozen shoulder

Bursitis and tenosynovitis are new terms to homemakers, but they are not uncommon sequels to overexertion. Early antirheumatic therapy is to be encouraged in the treatment of these conditions, as it is in more serious rheumatic conditions, to alleviate pain and prevent progression of the disorder. With adequate therapy the prognosis of bursitis in its acute stage is good. Delaying therapy may result in extension of the inflammation and gross anatomical changes that tend to incapacitate the patient.

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From the Medical Schools

SAINT LOUIS UNIVERSITY

Elections, Appointments

Dr. C. Rollins Hanlon, director of the department of surgery, has been named president-elect of the Society of University Surgeons. He will assume office as president in 1958, succeeding Dr. Francis D. Moore, professor of surgery, Harvard University. The object of the society, which was founded in 1938, is the advancement of the art and science of surgery by the encouragement of its members to pursue original investigations both in the clinic and in the laboratory. The society also encourages the development of methods of graduate teaching and surgery. Dr. Hanlon served as secretary to the society from 1953 to 1955.

Dr. James W. Colbert, Jr., has been appointed Chairman of the Continuation Education Committee of the Association of American Medical Colleges.

Lectures, Meetings

Dr. Robert D. Mattis, associate professor of clinical ophthalmology, and Dr. Fullerton W. Luedde, assistant professor of clinical ophthalmology, attended a symposium on "Glaucoma" under the auspices of the New Orleans Academy of Ophthalmology January 11-15.

Four members of the medical faculty participated in a forum on arthritis held at the Coronado Hotel February 21. Participants and their topics included: Dr. D. Elliott O'Reilly, senior instructor in orthopedic surgery, "Surgery in Treatment of Arthritis," Dr. Otakar Machek, "Physiotherapeutic Measures," and Dr. Jack Zuckner, senior instructor in internal medicine, "Research in Rheumatic Diseases." Dr. Raymond O. Muether, associate professor of internal medicine, served as moderator of the forum.

Dr. Donald W. Bussman, senior instructor in internal medicine, and Dr. James G. Janney, associate professor of clinical medicine, conducted a cardiac ausculation course at the Kansas City Hospital February 4 and 5.

Dr. Walter J. Burdette, professor of clinical surgery, delivered a paper titled "The Patient With Advanced Carcinoma of the Breast" before the American College of Surgeons meeting held in New Orleans February 4-7.

Dr. C. Rollins Hanlon, director of the department of surgery, and Dr. Burdette attended a meeting of the Society of University Surgeons held in Columbus, Ohio, February 7 to 9.

Dr. William A. Knight, Jr., associate professor of internal medicine, delivered a paper on "Bacterial Shock" before the Regional Meeting of the American College of Physicians which met in St. Louis February 23. He reported on thirty-eight cases of shock resulting from the invasion of the blood stream by bacteria.

Dr. Webb Haymaker of the Armed Forces Institute of Pathology, Washington, D. C., was a guest lecturer under the sponsorship of the Department of Pathology the week of February 7 to 11. Dr. Haymaker conducted a Cancer Teaching and a Clinico-Pathologic Conference and delivered three lectures titled, "Clinical and Pathology Features of Colloid Cysts in the 3rd Ventricle," "Anatomy and Functions of Hypothalamus," and "Radiation Injury to Central Nervous System." Dr. Louis L. Tureen, associate professor of clinical neurology and psychiatry and executive secretary of the section on neurology, assisted Dr. Haymaker on the Clinico-Pathologic Conference.

Dr. Jack Curtis, assistant chief of division of pharmacology, Food and Drug Administration, Washington, D. C., met with the Biochemistry Department February 27. Dr. Curtis was awarded his Ph.D. in Biochemistry in 1934. He visited the various laboratories in the Biochemistry Department.

Awards

Dr. James L. Donahoe, instructor in pediatrics, was awarded a certificate of achievement for meritorious service at ceremonies held at the South Broadway Medical Supply Depot March 1. Lt. Col. Arthur D. Sullivan, M.S.C., Commanding Officer of the U. S. Army Medical Optical and Maintenance Activity, presented the award to Dr. Donahoe, who formerly was a Captain in the Army Medical Corps at Ft. Benning, Ga. The certificate was from the Infantry Center, at Fort Benning, Georgia, where Dr. Donahoe was cited for performance of outstanding service as assistant chief and later chief of the pediatric section, United States Army Hospital.

Dr. Thomas M. Stevens has been awarded a research fellowship by the School of Medicine, and will conduct tissue culture studies on insects under Dr. R. Walter Schlesinger, director of the department of microbiology. Dr. Stevens, an entomologist, recently completed his graduate studies at Rutgers University. In his research, Dr. Stevens will attempt to find out the manner in which insects can remain affected with viruses their entire lives without suffering any damages themselves.

Grants

The School of Medicine has been awarded a grant of $44,300 from the National Fund for Medical Education. The school was the recipient of $15,000 and an additional sum of $65 for each medical student. John C. Naylor, chairman of the Fund's St. Louis Committee of America Industry, made the grants public as part of a total of $3,067,100 awarded by the NFME to eighty-two medical schools in 1956.

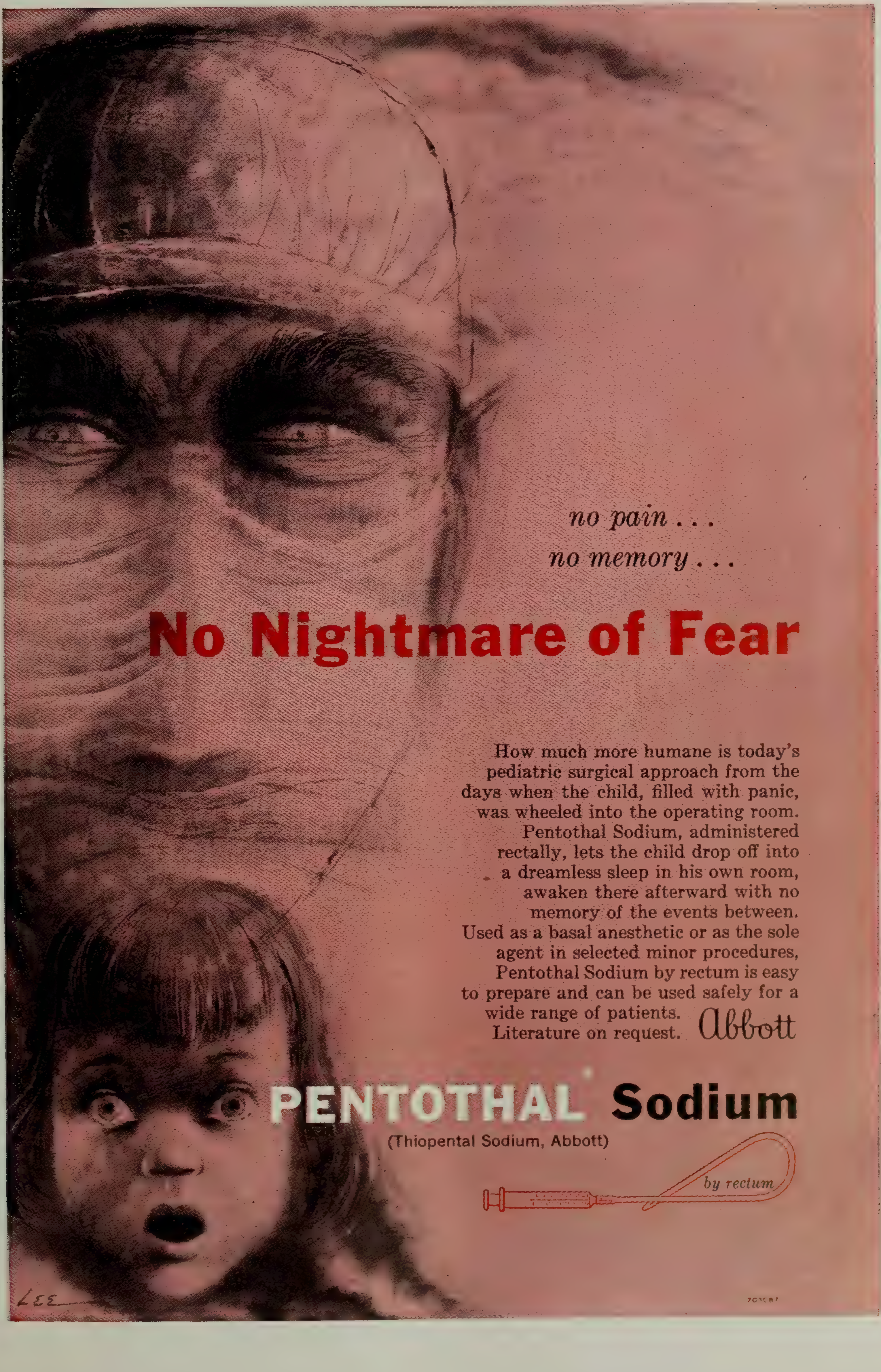
Medical Education Week

The School of Medicine will join the nation's eighty-one other medical schools in the second annual observance of Medical Education Week April 21 to 27. Dr. James P. Murphy, assistant professor of clinical medicine, is State Chairman of the Medical Education Week Committee.

WASHINGTON UNIVERSITY

Elections, Meetings

Dr. H. Relton McCarroll, assistant professor of clinical orthopedic surgery at Washington University School of Medicine, recently was named president-elect of the American Academy of Orthopedic Surgeons at the annual meeting of the organization in Chicago. He will take office at the annual meeting next year in



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New York. At the meeting Dr. McCarroll gave an instructional course on "Congenital Dislocation of the Hip" and was a member of a panel on "Cerebral Palsy." Other staff members who participated in the academy meeting were: Dr. Fred C. Reynolds, professor of orthopedic surgery; Dr. Lauren V. Ackerman, professor of surgical pathology and of pathology; Dr. Richard T. Odell, associate professor of clinical orthopedic surgery; Dr. Clarence H. Crego, Jr., assistant professor of clinical orthopedic surgery; Dr. Lee T. Ford, Jr., instructor in clinical orthopedic surgery; Dr. Arthur H. Stein, Jr., instructor in orthopedic surgery, and Dr. Wayne A. Simril, instructor in clinical radiology.

Dr. S. Richard Silverman, director of the Central Institute for the Deaf and professor of audiology at the medical school, has been elected president of the Alexander Graham Bell Association for the Deaf. The group promotes the teaching of speech to deaf children and information about problems of the deaf.

Dr. F. K. Mostofi, of the Armed Forces Institute of Pathology, Washington, D. C., recently gave the M.E.N.D. lectures at the medical school. In the afternoon he discussed "Irradiation of the Genitourinary Tract," and his subject for the evening lecture was "Urinary Bladder Carcinoma: Clinical-Pathologic Correlation." The lectures were sponsored by the Medical Education for National Defense group at the medical school which was established last year. It is part of a national organization to promote better cooperation between medical schools and the armed forces. There are thirty-five such groups in this country, and ten additional schools are permitted to join each year. Dr. Carl A. Moyer, Bixby professor and chairman of the department of surgery, and Dr. Harvey L. White, professor and chairman of the department of physiology, are coordinators for the organization at the medical school.

Dr. Edgar L. Frazell, assistant professor of clinical surgery at Cornell University Medical College, gave a lecture at the medical school on March 11. His subject was "The Treatment of Papillary Carcinoma of the Thyroid."

Dr. Walter L. Palmer, Chicago, president of the American College of Physicians, discussed "Peptic Ulcer" at the third annual Missouri Regional Meeting of the College held February 23 at the medical center. He also was the luncheon speaker at the all day meeting. Members of the College, other physicians interested in internal medicine, house staff officers and students were invited to attend. Dr. Michael M. Karl, assistant professor of clinical medicine, was chairman of general arrangements for the meeting and presided at the morning session. Dr. Carl V. Moore, Busch professor and chairman of the department of medicine, presided at the luncheon meeting. He is governor for Missouri of the College.

Dr. Alex H. Kaplan discussed the diagnosis and treatment of a typical patient of the Child Guidance Clinic of Washington University at the annual meeting of the advisory council held March 5 on the university campus. Dr. Kaplan is acting director of the clinic. Mrs. E. L. Brashear and F. Carl Schumacher recently were elected chairman and vice chairman of the council. They were introduced at the meeting,

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along with the secretary and treasurer, Mrs. Justin J. Cordonnier and Gordon Scherck. Other members of the executive committee are: Mrs. Julius Lesser, the retiring chairman, and Mrs. Edwin Meissner and Henry Hitchcock.

Grant

The National Fund for Medical Education recently awarded a grant of $37,490 to Washington University School of Medicine. The grant was part of the $3,067,100 awarded by the organization to eighty-two medical schools in 1956. Each of seventy-six four year medical schools received $15,000 and an additional sum of $65 for each undergraduate medical student. Two year schools received $7,500 and $65 for each student. The grant was announced by John C. Naylor, Chairman of the fund's St. Louis Committee of American Industry.

Postgraduate Course

A postgraduate course on the "Pathologic Physiology of the Blood Dyscrasias" was held February 18 to 22 in the hematology division of the department of medicine at the medical school. The course was under the auspices of the American College of Physicians and was attended by fifty-seven physicians from twenty-seven states. Out-of-town lecturers for the course included: Dr. Lawrence Young, professor and chairman elect of the department of medicine, and Dr. Scott Swisher, associate professor of medicine, both of the University of Rochester; Dr. C. Lockard Conley, professor of medicine, Johns Hopkins University; and Dr. Amoz I. Charnoff, associate professor of medicine, Duke University. Coordinators for the course at the medical school were Dr. Carl V. Moore, Busch professor and chairman of the department of medicine; Dr. Edward H. Reinhard, associate professor of medicine and consultant in hematology and oncology to the Mallinckrodt Institute of Radiology; and Dr. William J. Harrington, assistant professor of medicine. Many other staff members of the medical school gave speeches for the course during the week.

Visitors

Five army medical officers from Tehran University Medical School visited at the medical center recently. They were en route to Ft. Sam Houston, Texas, to attend a fifteen-week course in preventive medicine. On their return to Iran they will instruct other officers in preventive medicine. The visitors were Capt. Mohammad R. Mossadded, Capt. Beyouk Raezeghi, 1st Lt. Beyouk Zare, 1st Lt. Amanollah Missaghi, and 1st Lt. Yahya Negahdaripour.

UNIVERSITY OF MISSOURI

Trips and Talks

The annual meeting of the Missouri State Medical Secretaries and Assistants Society was held at the University of Missouri Medical Center on February 2 and 3, 1957. Dr. Roscoe L. Pullen, Dean, University of Missouri School of Medicine, spoke to the Society on February 2, 1957, on "Developments of the University of Missouri Medical Center," and on Sunday, February 3, 1957, he again spoke to the group at the combined meeting in the Auditorium of the Medical Center, and also took the group on an extended tour of the new Medical Center.

Dr. Frank B. Engley, Jr., professor and chairman, Department of Microbiology, and Assistant Dean, University of Missouri School of Medicine, spoke to the

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Engineers Club in St. Louis, on February 7, 1957. Dr. Engley used as his subject, "Air Borne Infection and Its Control." The meeting with the Engineers Club was a joint meeting of the American Society of Ventilating Engineers and the American Society of Refrigeration and Air Conditioning Engineers.

Dr. Engley was one of the principal speakers at the Water and Sewer Works Operators School held at the Student Union Building, University of Missouri, January 28 to February 1. Dr. Engley spoke January 28, 1957, on "Public Health Significance of Water Supplies." The School was jointly sponsored by the University of Missouri Adult Education and Extension Service and the Missouri Division of Health.

Dr. Engley presented a talk on "The Potentialities of Biological Warfare" to a meeting of the District Naval Reserves in Columbia, on January 16, 1957.

Dr. C. A. Elvehjem, Dean of the Graduate School, University of Wisconsin, and Head of the Agriculture Chemistry Department, was the principal speaker at a seminar held in the Medical Center on January 25, 1957. The meeting was sponsored by the Biochemistry Department of the School of Medicine and the Agriculture Chemistry Department of the University of Missouri and was attended by approximately 100 people. Dr. Elvehjem spoke on "Modern Concepts in Protein Nutrition."

From January 17 to 22, 1957, Dr. E. T. Standley, assistant professor, Department of Pathology, participated in a workshop on "Radioisotopes" in Washington, D. C. The workshop was attended by twenty-eight pathologists from all parts of the United States, Puerto Rico and Japan. It was sponsored by the District of Columbia Medical Society Section on Pathology and Laboratory Medicine, together with the College of American Pathologists and American Society of Clinical Pathologists. The workshop was held in the Oscar B. Hunter Memorial Laboratory and other District of Columbia hospitals.

At the State Nutrition Council meeting held at the Medical Center on February 9, 1957, Dr. Robert L. Jackson, professor and chairman, Department of Pediatrics, presented a talk on "Nutritional Problems of Infants and Children" and "Present Activities of the Council on Foods and Nutrition of the American Medical Association."

On February 14, 1957, Dr. Jackson appeared on Television Station KOMU-TV, Columbia, Missouri, sponsored by the Agriculture Extension Service of the University of Missouri. Dr. Jackson discussed "Obesity in Children," which was one of a series on "Weight Control."

At a postgraduate course in Pediatrics held in Galveston, Texas, February 14, 1957, by the University of Texas Medical Branch Postgraduate Division at Galveston, and the Department of Pediatrics, in cooperation with the Texas Medical Association, the Texas State Department of Health, the Texas Academy of General Practice and the Child Health Program of the University of Texas, Dr. Walter R. Hepner, associate professor of pediatrics, was one of the guest speakers. Dr. Hepner spoke to approximately 150 participants on "Pulmonary Problems of the Newborn," "Management of Newborn With Intestinal Obstruction," and "Neurological Examination in Infancy."

Dr. Grafton A. Smith, assistant professor, Department of Surgery, spoke to a meeting of the Callaway County Medical Society at Fulton, Missouri on January 12, 1957, using as his subject: "Intestinal Obstruction." The meeting was attended by members of the Medical Society and guests.

On January 30, 1957, Dr. C. K. Leeper, assistant professor in the Pathology Department, spoke to the County Unit Volunteer Workers of the Missouri Division of American Cancer Society at the Daniel Boone Hotel in Columbia. The subject of the presentation by Dr. Leeper was "How a Pathologist Looks at a Cancer" and was attended by approximately forty-five workers of the Society.

Dr. Gwilym S. Lodwick, professor and chairman, Department of Radiology, spoke to the members of the Department of Radiology, Medical Center, University of Iowa, on January 26, 1957. Dr. Lodwick used as his subject "Giant Cell Tumor of Bone" and the lecture was attended by approximately fifty professional members of the Hospital staff.

On January 30, 1957, Dr. Lodwick attended the Boone County meeting of the American Cancer Society held at the Daniel Boone Hotel in Columbia, Missouri.

A meeting of the American College of Radiologists was held on February 9, 1957, at Chciago, Illinois, where Dr. Lodwick attended the conference on "Undergraduate Teaching of Roentgen Anatomy" and other lectures. There were approximately 200 professional members in attendance.

On February 14, 1957, Dr. Lodwick visited the University of Kansas Medical Center, Kansas City, where he attended a course on "Radioisotopes."

On January 15, 1957, Dr. Hugh E. Stephenson, Jr., associate professor and chairman, Department of Surgery, spoke to the members of the Travis County Medical Society, Austin, Texas, as well as members of several surrounding medical societies on "Cardiac Arrest and Resuscitation." Approximately 250 were present for the evening meeting which was held in the Public Auditorium in Austin, Texas. Dr. Stephenson also spoke to the Staff of the State Mental Hospital in Austin, Texas, on the same date. In addition, he spoke to students attending a course of the Law-Science Institute of the School of Law, University of Texas.

On January 16, 1957, Dr. Stephenson visited the Baptist Hospital and the County Hospital in San Antonio, Texas.

Dr. Stephenson was in Galveston, Texas, January 17, 1957, and visited the Department of Surgery and toured the Medical Center of the University of Texas.

January 18, 1957, Dr. Stephenson talked to the Surgery Department faculty and students of the Southwestern Medical School at the Parkland Hospital in Dallas, Texas.

On January 12, 1957, Dr. Stephenson was a guest of the St. Louis Jewish Hospital where he spoke to the interns and members of the staff on "Problems Related to Cardiac Arrest and Resuscitation."

Dr. Jack Martt, assistant professor, Department of Medicine, Dr. William A. Sodeman, professor and chairman, Department of Medicine, and Dr. Hugh E. Stephenson, appeared on Television Station KOMU-TV, Columbia, January 27, 1957, as panel discussants on the subject " Medicine, Surgery and the Heart."

A special guest to the Department of Surgery was Dr. L. Corsan Reid, Professor of Research Surgery at New York University Postgraduate Medical School. He gave two inspiring talks to the students and members of the Faculty on January 25, 1957.

Dr. George J. Fuchs, Jr., assistant professor, Department of Obstetrics and Gynecology, and Dr. Clarence

D. Davis, professor, Department of Obstetrics and Gynecology, attended a meeting of the Kansas City Gynecological Society on January 17, 1957. There were approximately fifty in attendance.

On January 26, 1957, Dr. Clarence D. Davis, professor in the Department of Obstetrics and Gynecology attended a meeting of the Oklahoma City Obstetrical and Gynecological Society where he lectured on "Results of Treatment in 750 Infertile Couples."

Dr. Roscoe L. Pullen, Dean, University of Missouri School of Medicine, and Dr. W. A. Sodeman, professor and chairman, Department of Medicine attended the meeting of the American Medical Association, Congress on Medical Education in Chicago, Illinois, on February 11 and 12, 1957. Dr. Sodeman gave the keynote speech on "Postgraduate Education" to the group of approximately 1,000 physicians.

On January 16, 1957, Dr. T. W. Burns, assistant professor, Department of Medicine, spoke on "Egypt and the Modern World" to members of the First Christian Church Fellowship Club, in Columbia.

Dr. Burns also spoke on January 17, 1957, before the Cooper County Heart Association at Boonville, Missouri, using as his subject: "Recent Advances in Rheumatic Fever and Rheumatic Heart Disease."

The annual meeting of the Missouri Nutrition Council was held at the University of Missouri Medical Center on February 9, 1957. Following the program, which was presented by Nutritionists throughout the state, an election of officers was held, with Miss Dorothy Vorhies, associate professor of dietetics and nutrition and director, Dietary Department, University of Missouri Medical Center, being elected chairman for the coming year. The participants and visitors to the meeting were shown the facilities of the new Medical Center following the close of the meeting.

A conference on Research in Nursing was held February 11, 1957, sponsored by the University of Missouri School of Nursing. The conference, which was attended by approximately twenty-five nurses, was conducted by Dean Loran G. Townsend of the College of Education, University of Missouri; Dr. Charles E. Lively, Professor of Rural Sociology, University of Missouri; Miss Margaret W. Mangel, professor of Home Economics, University of Missouri; Dr. Frank B. Engley, professor and chairman, Department of Microbiology, and Assistant Dean, School of Medicine; Miss E. Vreeland, chief, Research Grants Branch, Division of Nurses Resources, United States Public Health Service; Miss M. Spaulding, United States Public Health Service, and Dr. Helen E. Kinney, Missouri State Division of Health, Jefferson City.

Dr. E. Harold Hinman, Dean of the School of Medicine, University of Puerto Rico, was a guest of the University of Missouri Medical Center on February 8, 1957.

Dr. Donald A. Charnock, President of the California State Medical Association, Los Angeles, California, has been a guest of his son-in-law, Mr. James E. Stickler, who is a student at the University of Missouri School of Medicine. While in Columbia, Dr. Charnock was a visitor to the Medical Center of the University of Missouri.

Postgraduate Medicine

The sixth in the series of Postgraduate Medical Education sessions was held January 24, 1957, at the University of Missouri Medical Center. Dr. Gwilym S. Lodwick, professor and chairman, Department of Radiology, was the guest speaker, discussing "Giant Cell Tumors of Bone." A Clinical Pathological Conference,

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held by the Departments of Surgery and Pathology, followed the session.

A Correlative Clinic was held as a Postgraduate Session on February 14, 1957, with the Department of Surgery presenting the program.

X-Rays

(Continued from page 348)

9. The Committee is consequently anxious to receive information through appropriate governmental channels as to the methods and the extent by which such economy in the medical use of radiation can be achieved, both by avoiding examinations which are not clearly indicated and by decreasing the exposure to radiation during examinations, particularly if the gonads, or the fetus during pregnancy, lie in the direct beam of radiation. It seeks, in particular, to obtain information as to the reduction in radiation of the population which might be achieved by improvements in instrument design, by fuller training of personnel, by local shielding of the gonads, by choosing appropriately between radiography and fluoroscopy, and by better administrative arrangements to avoid any unnecessary repetition of identical examinations.

10. The Committee seeks the cooperation of the medical profession to make possible an estimate of the total radiation received by the germinal tissue of the population before and during the child-bearing age. It considers it to be essential that standardized methods of measurement, of types at present available, should be widely used to obtain this information and it emphasizes the value of adequate records, maintained by those using radiation medically, by the dental profession and by the responsible organizations in allowing such radiation exposure to be evaluated. The Committee is convinced that information of this type will make it possible to decrease the total medical irradiation of the population while preserving and increasing the true value of the medical uses of radiation.

Missouri Medicine in Review

(Continued from page 314)

versity at a meeting of the board of directors on February 18. Dr. Clopton has been a member of the board since November, 1927. He is professor of clinical surgery in Washington University School of Medicine having been a member of the medical school faculty for many years. June, 1930, Dr. Clopton gave $250,000 toward the construction and equipment of the Rand-Johnson Memorial Wing of Barnes Hospital and in March, 1931, he gave a collection of valuable art prints to the university's projected museum.

Fire caused a $10,000 damage to the Woodland Hospital at Moberly on March 6. Patients were removed to the Wabash Hospital across the street and none suffered any ill effects. Reconstruction work began immediately.—Three old medical books are being offered for sale by Mr. John E. Stone, Dexter, Missouri, and anyone interested should communicate with Mr. Stone. The books are "Children," by Dewees, 1829; "Elements of Hygiene," by Dunglison, 1835, and "Science and Practice of Medicine," by Aitkens (two volumes), 1872.—The Kansas City Obstetrical and Gynecological Society was recently organized. The officers of the new society are: President, Dr. Theodore H. Aschmann; vice president, Dr. Buford Hamilton; secretary-treasurer, Dr. Paul Gempel, and on the executive committee Drs. Francis E. Wilhelm and C. L. Calkins, all of Kansas City.—The American Nurses' Association recently revealed figures disclosing the overcrowded condition of the field of trained nursing. Although there remain areas of the country where nurses are not readily available and groups of patients not properly nursed, the figures for forty-two cities which were studied showed that the average nurse has no more than 149 days of employment in any given year. In Bangor, Maine, the nurse has not over 77 days of work.—A nation-wide observance on March 24 commemorated Dr. Robert Koch's announcement fifty years ago that he had discovered the germ which causes tuberculosis. Bacteria were probably seen by Leeuwenhoek before the end of the seventeenth century; the doctrine of contagium vivum was considered and forgotten and again after 1840 there was some revival of the theory that contagious diseases might be due to microscopic life, but it was the work of Koch, Pasteur and Lister that substantiated the germ theory of disease.—A verdict in favor of the American Medical Association was returned on March 3 by a Federal court jury in the half-million-dollar libel suit filed by Norman Baker, of Muscatine, Iowa, against the Association. Baker offered nearly a score of witnesses during the four weeks of the trial to show that cures at his institute were successful but much of the testimony was ruled out after the defense counsel objected on the ground that the witnesses were not qualified to determine that their ailments were cancer.

Dr. Jacob Geiger, St. Louis, entertained the members of Buchanan County Medical Society at a dinner at St. Francis Hotel, St. Joseph, on March 2, in celebration of his sixtieth year in the practice of medicine. Dr. Geiger shared the honors of the occasion with Dr. J. B. Reynolds, St. Joseph, who has practiced in that city for fifty years.—The death of Dr. Howard Hill on February 24 causes the Jackson County Medical Society to pause and pay tribute to the memory of one of its most brilliant and colorful surgeons. Dr. Hill was one of the old guard largely responsible for the development of modern surgery in the middle west, whose ranks are rapidly thinning.

TEN YEARS AGO

George W. Forman, M.D., St. Joseph, was named superintendent of State Hospital No. 2, St. Joseph, on March 15 by Mr. Samuel Marsh, director of the State Department of Public Health and Welfare.—Missouri State Medical Board examinations will be given by the State Board of Medical Examiners of Missouri on May 26, 27, 28, 1947, at the St. Louis University School of Medicine, St. Louis, and on June 9, 10, 11, 1947, at Washington University School of Medicine.

The *British Medical Journal* editorializes: "Coal and Medicine. Shivering we tend to think of coal only as fuel. Coal is medicine as well. Runge discovered in 1834 carbolic acid, a coal-tar product. With carbolic Lister stoked the fires of surgery for posterity. Perkin's discovery of the aniline dye mauve in 1856 was the starting point of modern medicine. Weigert in 1871 stained bacteria with the aniline dyes of coal-tar, and Koch soon followed suit. Ehrlich hit upon the idea that certain cells had chemical affinity for certain dyes. This led to differential staining of tissues and the birth of chemotherapy. The red dye-stuff prontosil, patented in 1932, began a revolution in medical treatment, with the sulpha drugs. The malarial remedies mepacrine and paludrine depend for synthesis on coal-tar distillates. From naphthalene comes the synthetic analogue of vitamin K. Phenol is the chemical parent of a common purgative, of aspirin, and of the synthetic estrogen stilboestrol. Coal gives doctors their most potent remedies and research workers essential chemical instruments. And if nylon that comes from coal is wanted by colliers' wives for stockings the surgeon also wants it for his sutures."

Physicians of the Sixth Councilor District of the Association met in the afternoon and evening of February 17 at the Bothwell Hotel, Sedalia, with R. W. Kennedy, M.D., Marshall, Councilor, presiding. Approximately sixty physicians were in attendance during the two sessions.—The South Central Counties Medical Society held a dinner meeting at the Antlers Cafe, Mountain Grove, on February 21, with the following members and visitors present: J. R. Mott, M.D., Hartville; J. A. Fuson, M.D., Mansfield; R. A. Ryan, M.D., R. W. Denney, M.D., H. G. Frame, M.D., A. C. Ames, M.D., Mountain Grove; Garrett Hogg, Jr., M.D., Cabool; R. T. Marsh, M.D., Houston; C. F. Callihan, M.D., Willow Springs; E. C. Bohrer, M.D., West Plains; Deborah Doan, M.D., Bakersfield, and Roland Langston, M.D., and J. L. Johnston, M.D., Springfield.

The Scott County Medical Society held a monthly dinner meeting at the Rustic Rock Inn in Sikeston on February 14, with H. B. Throgmorton, M.D., President, presiding. Dr. Finney was elected as delegate to the Association Annual Session and Dr. Nienstedt was elected alternate delegate. Dr. Seabauh gave a most interesting talk on "Pathology of the Genito-urinary Tract Encountered Without Urinary Findings."

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Woman's Auxiliary

(Continued from page 330)

Perry County: Mrs. J. F. Lutkewitte, President, 12 members.

The Auxiliary cooperates with administrator of Perry County Hospital in one of the first and most comprehensive recruitments to Health Careers programs in the state. Students from Perry County and Ste. Genevieve County high schools are invited and films and speakers, representing various anciliary health personnel, are there to inform them of opportunities in hospital work. Members serve refreshments.

Each member contributed to A.M.E.F.

Members entertain entire nursing staff of hospital at dessert-bridge party in the various homes.

Butler-Ripley-Wayne: Mrs. M. V. Malinoski, President. This is one of the newest auxiliaries and was begun with high hopes of harmony and interest with every member on the mailing list for *Today's Health* and the *National Bulletin* for general background information about Auxiliary objectives.

A film and speaker were furnished to PTA council.

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Members individually work in schools and other organization to recruit nurses and other health personnel.

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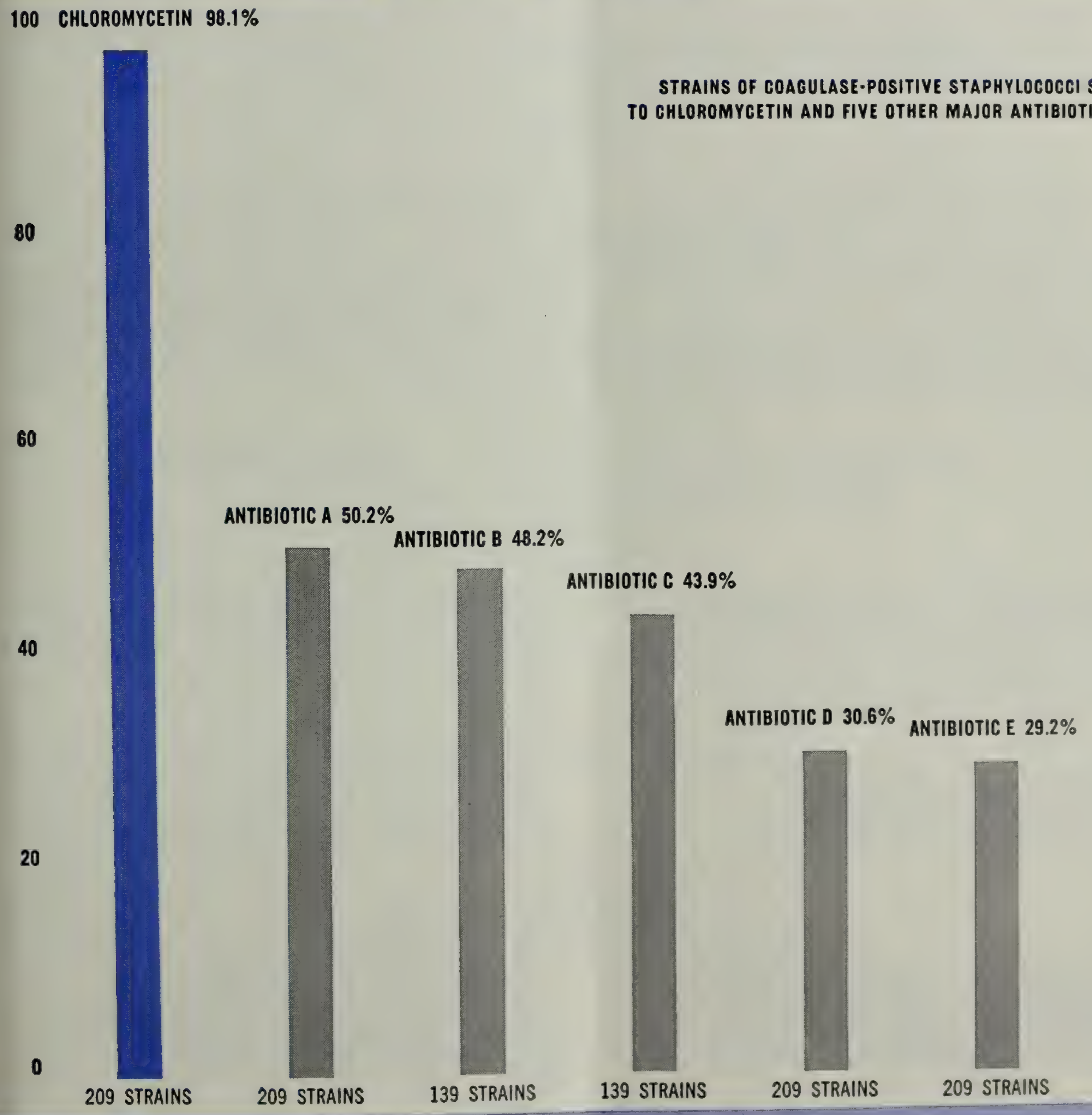
STRAINS OF COAGULASE-POSITIVE STAPHYLOCOCCI SENSITIVE TO CHLOROMYCETIN AND FIVE OTHER MAJOR ANTIBIOTIC AGENTS*

*This graph is adapted from Spink.[2]

Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Curiosa et Trivia

William B. McCunniff, M.D.

At an altitude of 40,000 feet, a person suddenly deprived of supplemental oxygen has only about fifteen seconds of useful consciousness to correct the situation. At 20,000 feet, the time is approximately ten minutes, and at 30,000 feet, ninety seconds.

Pirogov's "Atlas of Topographical Anatomy" was inspired by his idea for obtaining true cross-sections of the human body; utilizing the intense cold of northern Russia, he transected frozen human bodies with a hammer and chisel.

Within the last ten years, the death rate from toxic goiter has dropped almost 75 per cent. In the same period the death rate from cancer of the thyroid has increased 20 per cent.

At the then going price of ten cents an ounce, a Los Angeles woman pocketed in eleven months nearly $2,500 from the sale of more than seven hundred quarts of her milk to a human milk bureau.

Request for medical aid received by a pharmacist: "What is good for strained I lifted a bucket very heavy and some how my vowels are hold and don't let me breath and a pain in chest on left side."

Capsule Clinics

I. A. Wien, M.D.

- The first possibility in increasing cure in cancer of the rectum is a greater realization that 50 per cent of these cancers can be felt with the examining finger and 70 per cent can be seen with the sigmoidoscope. Cancer Bull. **6** (July-Aug.) 1954.

- On the basis of experience with fifty-seven patients it seems that elective operative mortality for aneurysm of the aorta (abdominal) is less than the risk of rupture of aneurysm within one year. Operation should be recommended but in no instance urged. Bahnson, H. T.: Surg. Clin. N. America **36** (August) 1956.

- Extended or super-radical mastectomy which may include excision of supraclavicular or para-

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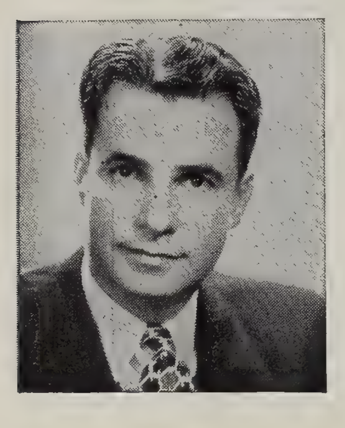
Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO



Dr. James Jett of Linn, Mo., who was operated on recently has recovered and has again taken up his practice. Dr. John M. Grant and Dr. Henry Gettys of St. Louis, have been elected members of the St. Louis Board of Education. Dr. W. P. Bradley, superintendent of State Hospital No. 3, Nevada, has been reappointed superintendent of the institution by the board of managers to serve for four years.

"The United States is the only great industrial nation without compulsory health insurance," Professor Irving Fisher has said recently. In view of this need, the National Conference of Charities and Corrections has provided an entire division on the subject of social insurance for its meetings at Pittsburgh, June 6-13. The American Proctologic Society will hold its annual meeting at New York City, June 4 and 5, with headquarters and place of meeting at the Hotel Astor. Among the thirteen papers announced for the program are two by St. Louis physicians: "Should the Sphincters Be Divided," by Dr. Rollin H. Barnes, and "Enemas and Colonic Flushing as Etiologic Factors in Appendicitis," by Dr. William H. Stauffer. The St. Louis Medical Society has established a credit bureau through which the members of that society will receive expert service in the collection of overdue accounts. Eleven of the forty-two bills in the Children's Code, prepared by the Missouri Children's Code Commission, were passed by the Forty-Ninth General Assembly. Of this number only four or five mark any great achievement, namely: 1. The bill creating juvenile courts in counties of less than 50,000 population. 2. The state-wide mother's pension act. 3. The bill making adoption and permanent transfer of custody of children a court proceeding. 4. The establishment of state detention school for dependent children pending placement in foster homes. 5. The bill providing treatment of incorrigible minors over the juvenile court age (17 years) in the juvenile court.

The Clay County Medical Society met at the Major Hotel in Liberty on February 26. The Liberty members were too busy to be out in force, but Excelsior Springs was well represented. All the absentees missed one of the best meetings in our history. Some of our good men are going to "read themselves out of standing" if they persist in being delinquent. Some four men are getting close to the danger line (two years default), and are keeping the society off the Roll of Honor.

TWENTY-FIVE YEARS AGO

The American Medical Association will hold its eighty-third annual session in New Orleans May 9 to 13, the fifth time the Association has met in that city. The first meeting in New Orleans, held just after the Civil War, established an enduring cordial relationship between the medical profession in the South and the national association. New Orleans is well equipped to be host to the Association. Sixteen hospitals in New Orleans furnish one bed for each 115 of the population. Tulane School of Medicine has graduated 6000 during the ninety-nine years of its existence. During this entire period the school failed to graduate any students only in the years 1863 to 1865 inclusive which was the period of the Civil War. Recently the Medical Center Building of the Louisiana State University was completed in New Orleans.

The March 16 meeting of the Caldwell-Livingston County Medical Society convened in the Chillicothe high school auditorium, Chillicothe, at 2:45 p.m. The secretary presided in the absence of the president, Dr. C. H. Wilbur, Polo. Dr. R. L. Sutton, Kansas City, noted author, explorer and dermatologist, was guest speaker. Dr. Sutton showed over 400 lantern slides of scenes in Africa. The audience of 1200 was held enraptured throughout Dr. Sutton's lecture.

The meeting of the Jasper County Medical Society at Joplin, March 15, was presided over by the president, Dr. Jesse Douglass, Webb City. Seventeen members and six visitors were present. Dr. Fred Irwig, Kansas City, was guest.

The Lafayette County Medical Society met in Concordia, March 22, with President Odus Liston, Oak Grove, in the chair. Dr. E. L. Johnston, Concordia, read an interesting paper on "Impotence in the Male," which was well presented and brought out much discussion.

Mrs. George H. Hoxie, Kansas City, gave a luncheon on Friday, March 11, in honor of Mrs. William J. Freeman, Philadelphia, president-elect of the Woman's Auxiliary to the American Medical Association, and Mrs. A. B. McGlothlan, St. Joseph, president of the National Auxiliary.

Cultivation of "Common Cold" virus. The growing conviction that "common colds" are not due to any microorganisms thus far included in commercial vaccines, but to an unknown filterable he only one of its kind"

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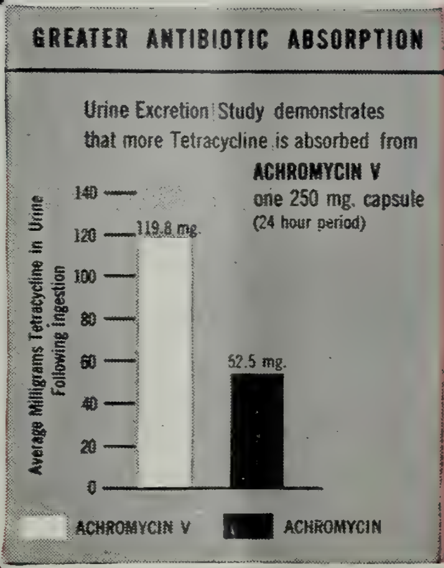

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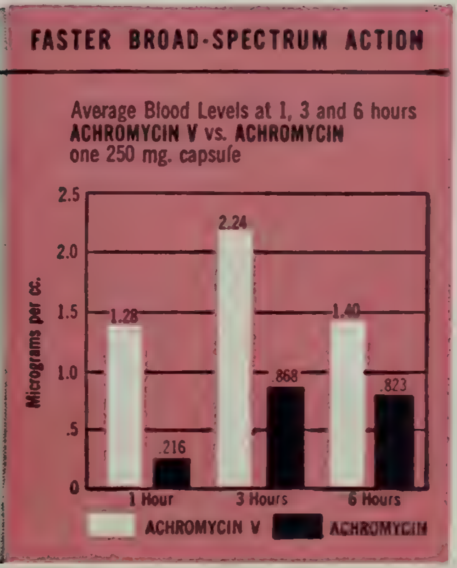

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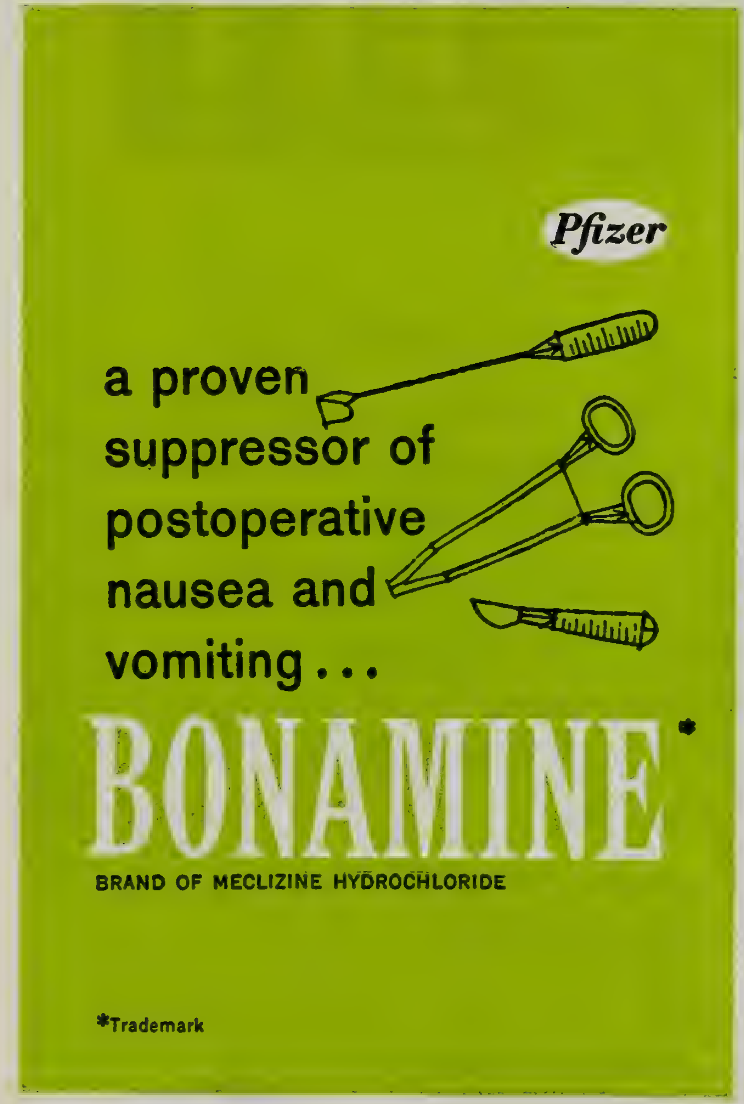
virus or group of viruses, is strengthened by the currently reported successful cultivation of bacteria-free pathogenic nasal filtrates. The work indicates conclusively that the filterable agent associated with “common colds” multiplies or is multiplied in the embryonic tissue medium. (J.A.M.A., August 15, 1931, p. 466.)

A newly published book: *Female Sex Hormonology,* by William P. Graves, M.D., Professor of Gynecology at Harvard Medical School. He comments, “The successful search for the hormones of the ovary and the discovery of the hypophysis as an agent in the sexual and reproductive cycles undoubtedly represent one of the greatest advances in scientific medicine during the last decade. The recent good work started in this country with Allen and Doisy’s practical identification of an ovarian hormone in 1922, the identification by Frank of the estrous forming hormone in the liquid contents of the follicle and other tissues, and finally the isolation of folliculin (estrin) in 1928 by Allen and Doisy in this country and Butenandt in Germany in pure crystalline form. The following year (1929) Corner published his discovery of progestrin—the hormone of the corpus luteum which proved the two-fold nature of the ovarian internal secretions. In 1930 came Zondek’s and Wiesner’s demonstration of two sex hormones of the anterior lobe of the pituitary gland which seem to act as a motor to the ovarian internal secretions.”



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BONAMINE*

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*Trademark

John H. Dyer, M.D., Warrenton, was honored by his community for fifty-five years of medical practice in a program and reception at the College Methodist Church in Warrenton on February 2. C. Souter Smith, M.D., Springfield, was installed as president of the Kansas City Society of Ophthalmology and Otolaryngology on April 2. Other Missouri officers are Alvin Baer, M.D., president-elect, John C. Howard, M.D., vice president, both of Kansas City. William J. Stewart, M.D., Columbia, spoke at a meeting of the Chariton-Macon-Monroe-Randolph County Medical Society on “Common Fractures Seen in General Practice and Their Treatment.” Charles Greenberg, M.D., St. Joseph, spoke at a joint meeting of nine county medical societies at Chillicothe on “The Relation of Urology to General Practice.”

Olin West, M.D., Chicago, President-Elect of the American Medical Association, has resigned because of ill health. Edward L. Bortz, M.D., Philadelphia, Vice President, will succeed Dr. West and will be inaugurated as President at the annual session in Atlantic City in June.

The Eighty-ninth Annual Session of the Association convened in Kansas City on March 31, April 1 and 2, with 930 physicians, guests and exhibitors registered for the session. Morris B. Simpson, M.D., was installed as President at the Wednesday afternoon session of the House of Delegates by Howard B. Goodrich, M.D., Hannibal, retiring President. Robert Mueller, M.D., St. Louis, was elected President-Elect. Other officers elected were: Vice Presidents, O. T. Blanke, M.D., Joplin; S. M. Bailey, M.D., Malden, and Donald M. Dowell, M.D., Chillicothe; Speaker of the House of Delegates, Ralph E. Duncan, M.D., Kansas City.

The Barry-Lawrence-Stone County Medical Society met April 8 at Rockaway Beach Hotel for a steak dinner with nineteen present. Mr. Bethel Eiserman, cashier of the Bank of Branson, discussed the plans for the new hospital. He reported that Mr. Skaggs, founder of the Safe Way store Company, Inc., promised to build a modern hospital for the Branson Community. The Society moved to invite the Christian and Taney county medical societies to hyphenate with the Barry-Lawrence-Stone County Medical Society.

Capsule Clinics

(Continued from page 409)

sternal and regional lymphatics was done on sixty-four patients with an operative mortality of 12.5 per cent. Present follow-up studies do not suggest an improvement over conventional radical mastectomy. Wangensteen, O. H., et al.: Surg. Clin. N. America **36** (August) 1956.

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Woman's Auxiliary

Mrs. Armand D. *(Ruth Anne)* Fries, *President*

This article is the first in a series, which is to be written as a pleasant monthly duty, by the President of the Woman's Auxiliary to the Missouri State Medical Association for publication in Missouri Medicine. We, as Auxiliary members appreciate the favorable recognition of our organization implied when you allow us space in this valued monthly publication, so that we may tell you, our beloved doctors, and the future prospective Auxiliary members who may read these articles, what has already been accomplished through our organizational efforts, and what we hope to do in the future, to become a more forceful organization.

We have just returned from the 32nd Annual Meeting of our Auxiliary, held March 31, April 1 and 2, at the Muehlebach Hotel, in Kansas City. The Woman's Auxiliary to the Jackson County Medical Society was our host, with Mrs. William Bayne Allen and Mrs. William H. Hickerson, co-chairmen of arrangements. This was one of the finest conventions we have ever attended. Nothing was left undone that would add to our comfort, enjoyment or entertainment. The interest in our organization was evidenced in the large registration at our regular meetings; and the outstanding reports from the officers and the presidents of twenty-eight of our thirty-one counties, were a tribute to Mrs. Charles T. Shepherd's (our immediate past president) splendid leadership. The fine Board and committee chairmen, who cooperated with her throughout her term of office, in friendliness and harmony, made it a most successful one. They are all to be congratulated for their outstanding year.

These facts would have been sufficient reason to have a delightful three days, but this convention had an outstanding joy for us for, on the last day of our meeting, I stood before the Auxiliary to receive the highest honor that can be accorded one, that of being installed as the presiding officer for the coming year. The new group who have agreed to serve on the new Board were installed and they, and the newly appointed committee chairmen, are most capable and enthusiastic; and I have implicit faith in them and their ability to perform the duties of their office willingly and well. The Auxiliary had the pleasure of having as its guests throughout the meeting two lovely and gracious women, our National President, Mrs. Robert Flanders, of New Hampshire, and Mrs. Oscar Robinson, of Paris, Texas, the President of the Woman's Auxiliary to the Southern Medical Association, in which we also hold membership. Mrs. Robert Flanders was the installing officer. I felt singularly honored for this gracious and impressive gesture, for it is not often that a state president and her new Board have the honor, privilege and pleasure of being installed to office by the National President. Just having the honor of their attendance at our meetings would have added greatly to our pleasure throughout this convention; but we were inspired by their messages to us, appraising our importance to the medical profession, and their commendation of the fine reports of our activities.

We shall at all times conform with the regulations, adhere to and try to carry out the plans, policies and basic principles of the National Auxiliary. On the state level we will be strengthened by the success of the county programs, and regular attendance at the local auxiliary meetings. If we all do our part in attending regularly, encourage the nonmembers to join, welcome the stranger or a new member, and our portion of the work of the Auxiliary, we cannot help but to grow in purpose, as well as numbers, and our Auxiliary will become one in which we will all be proud to hold membership.

There are many phases of Auxiliary activities, so that now, our agenda is a full one. There is interest for every Auxiliary member in our varied program, and the good times we enjoy by social contact, and the good fellowship created by all working together on mutual projects so vital to us all, certainly is the best part of our Auxiliary work. I will try to visit with the counties at their meetings during the year, and the first of my official visits will be the luncheon with Marion-Ralls-Shelby at Hannibal on April 9 and the Health Day Luncheon of Jefferson County at Festus on April 11.

So with you, our beloved doctors, showing interest in our activities, and encouraging our efforts, you may be assured, that all the Auxiliary members will in return, be good will ambassadors for the medical profession in all their daily contacts.

Missouri Medicine

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Ovarian Carcinoma

Diagnosis and Treatment

STUART ABEL, M.D., *Chicago*

THERE IS perhaps no greater challenge in all of gynecology than that afforded by the successful diagnosis and management of ovarian malignancy. While the incidence of this disease is less than that of carcinoma of the cervix and of carcinoma of the endometrium, it is nevertheless encountered with appreciable and disturbing frequency.

In 1953 in New York State, carcinoma of the cervix, endometrium and ovary, expressed in percentage of all cancers, were encountered as follows: cervix 9.6 per cent; endometrium 6.1 per cent; ovary 4.9 per cent.

In his textbook "Gynecologic Cancer," Croscaden has expressed the percentage probability of developing the three types of carcinoma as follows: cervix 2/19 per cent; endometrium 1.3666 per cent; ovary 0.916 per cent. Other authors have reported comparable statistics.

While the incidence of ovarian malignancy is somewhat less than cervical or endometrial cancer, there are certain features of ovarian carcinoma which render its early diagnosis and successful management difficult. At the same time they create apprehension and concern in all occupied with the effort. The cause of such apprehension and concern is reflected in the relatively poor results obtained in the treatment of ovarian malignancy as will be discussed later.

The most notable and awesome characteristic of this disease is its insidious onset and development. Except for symptoms which may be produced by the rare hormone producing malignant tumors, the usual clinical course of ovarian cancer is silent indeed. All too often the patient with ovarian carcinoma is found to have extensive and even hopeless involvement at the time she is first examined. This situation may pertain to the patient who is still asymptomatic and merely consulting the physician for routine examination and check-up. More frequently, but at most, there are symptoms of pressure, bloating or abdominal enlargement only, due to the tumor mass and associated ascites.

In contrast to the above, the diagnosis of uterine malignancy is usually made earlier and with less difficulty. The symptoms of abnormal bleeding is almost invariably present in both cervical and endometrial carcinoma and, as a rule, relatively early in the course of the disease. With increased awareness of the significance of this symptom by the profession and particularly by the lay public, more and more uterine cancer is encountered and diagnosed early. Unfortunately, no such heraldic symptom is produced by ovarian malignancy. Moreover, and to carry the comparison farther, the cervix is essentially an external organ if we but insert a speculum at every examination. It can be carefully visualized and directly palpated in an attempt to discover early lesions. Evaluation of the ovary which contains an early lesion is not as easily accomplished. Also, biopsy of the cervix and even curettage of the endometrium are simple procedures, which, in the majority of cases, supply conclusive evidence of malignancy if present. Practically, it is next to impossible to obtain ovarian tissue for study and confirmation. And finally the advent of the cytologic smear has enabled us to discover earlier and earlier lesions in the cervix, and, with aspiration technic, in the endometrium as well. No such simple adjuncts are available in efforts to discover early carcinoma of the ovary.

It is no wonder then that most of us are fearful of carcinoma of the ovary. Arguments for removing the ovaries at all abdominal pelvic operations in patients over 45, 40 or even younger, as practiced in some clinics, are understandable reflections of this widely shared fear and concern. We can be sure that the proponents of such procedures arrived at this tenet after unhappy experience with unrecognized or rapidly developing ovar-

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Presented at the 99th Annual Session, Missouri State Medical Association, Kansas City, March 31-April 3, 1957.

ian malignancy. Our own rule of careful inspection and palpation of the ovaries at all gynecologic intraperitoneal operations, either abdominal or vaginal and including cesarean section, is predicated on the same concern and experience.

It is clear, I believe, that the early diagnosis of this insidious and lethal disease must depend on careful bimanual examination and not upon any diagnostic tests or adjuncts. It is also clear that, in most cases, the silent character of its onset and development renders the patient's history of relatively little help in establishing an early diagnosis. All this in turn emphasizes the importance of routine pelvic examination, and implies that the correct interpretation of abnormal pelvic findings is imperative in arriving at a correct diagnosis.

TYPES OF OVARIAN MALIGNANCY

Before turning to the discussion of diagnosis, it seems advisable to classify the disease. This is most easily and perhaps best accomplished by simply listing the various types, many of which have certain characteristic features which will be discussed. However, the findings at pelvic examination upon which the diagnosis is made are remarkably similar in nearly all types.

I. Primary Cystic Carcinoma (from papillary cystadenomata).
    A. Serous.
    B. Pseudomucinous.
II. Primary Solid Carcinoma.
    A. Adenocarcinoma.
    B. Undifferentiated.
III. "Special" Tumors.
    A. Dysgerminoma (seminoma).
    B. Granulosa cell.
    C. Theca cell (rarely).
    D. Arrhenoblastoma (rarely).
    E. Mesonephroma.
IV. Teratoma (embryonic solid teratoid tumor).
V. Sarcoma (rare).
VI. Metastatic or Secondary Carcinoma.
VII. Krukenberg Tumor—A Distinctive Tumor.

Primary Cystic Carcinoma.—This form of ovarian carcinoma, by far the most frequent in occurrence, is thought to arise from cystadenomata. In the great majority of cases it arises from the papillary variety of cystadenomata of which the serous type is most common. While pseudomucinous cystadenomata are more common than the serous variety, the former are papillary in only about 10 per cent of cases and thus tend to become malignant less frequently. Regardless of type and regardless of the cytologic criteria at microscopic examination all papillary tumors of the ovary are considered to be clinically malignant. The prognosis is worse if there are papillary excrescences on the surface of the cyst.

Roughly three fourths of all primary ovarian malignancies are papillary cystadenocarcinomata and the ratio of serous to pseudomucinous variety is approximately 4 to 1. These figures and many of those following are those compiled by Corscaden from various clinics and from the records in New York State and Connecticut where carcinoma is a reportable disease.

Primary Solid Carcinoma.—This form of carcinoma may be either adenocarcinoma or undifferentiated in type. The latter is often alveolar or medullary. Primary solid carcinoma is much less frequent in occurrence than the cystic type, comprising about 10 per cent of all primary ovarian cancer.

Dysgerminoma.—This embryonic tumor arises from primitive cell nests in the ovary, cells which have not yet been differentiated in either sex direction. They are non-hormone secreting, relatively rare, and, although they are found in all age groups, they are usually encountered in young individuals. The degree of malignancy varies a great deal from case to case. While generally considered to be less malignant than the above types, they may on occasion grow rapidly and follow a highly malignant course. Perforation of the capsules and bilaterality (50 per cent) imply a serious prognosis.

These tumors comprise about 3 per cent of all primary ovarian malignancy.

Granulosa Cell Tumor.—This tumor, characterized by its yellow, though variegated gross appearance and by the follical-like, rosetta arrangement of the granulosa cells microscopically, is a feminizing tumor and as such usually produces some type of adnormal bleeding clinically. This is most striking in the post-menopausal or prepubertal patient. While not common this is one of the most frequently encountered of the so-called "rare tumors."

While some of these tumors may be benign and slow growing, many are malignant and in general they must be classified among the types of ovarian carcinoma. In Corscaden's summary they constituted 6 per cent of ovarian carcinoma.

Theca Cell Tumor.—It is impossible to discuss granulosa cell tumors without mention of thecomas, even though well differentiated theca cell tumors are almost always benign. Moreover, there is an intermediate group of feminizing tumors in which both granulosa and theca cell elements are present. Novak includes granulosa cell tumor and thecoma under the designation, "feminizing ovarian mesenchymoma," a term which includes the concept of their origin and their common hormone production. It also includes those intermediate type tumors in which both types are mixed and in which the degree of malignancy is quite difficult to establish.

Arrhenoblastoma.—This rare masculinizing tumor is rarely malignant even in the more poorly differentiated types which bear little resemblance to testicular tissue but which are sarcoma-like in appearance.

Mesonephroma.—This is a rare tumor characterized by immature glomeruli and a peritheliomatous structure. It is malignant in about half of the cases.

Teratoma.—This embryonic solid teratoid tumor is highly malignant and tends to occur in young patients. It contains all types of tissue in varying degree of undifferentiation; consequently it presents an extremely variegated appearance both grossly and microscopically. Curtis has described the latter as "histologic chaos" with disarrangement and confusion of tissues, a so-called "histological pot pourri."

Sarcoma.—This is a rare ovarian malignancy. Novak states its incidence in relation to primary carcinoma is about 1 in 40.

According to Corscaden, these last rare types constitute about 6 per cent of all ovarian malignancies ("arrhenoblastoma, teratoma, mesonephroma, and so on").

Mestastatic or Secondary Carcinoma.—It is difficult to know what percentage of all ovarian malignancy is secondary. On occasions it may be difficult to establish at once a primary site of malignancy, when an obvious ovarian malignancy is encountered, even if the latter is secondary. Such growths are then listed as primary, and even if later a primary site is located, the statistics remain uncorrected. Moreover, ovarian metastases from uterine or gastrointestinal malignancy are common, but these cases are tabulated as gastrointestinal or uterine malignancies. They may appear in analysis of ovarian malignancy as such. It is probable that metastatic ovarian carcinoma is more common in relation to primary ovarian carcinoma than generally described.

Ovarian metastases are common in carcinoma of the endometrium, estimated as high as 16 per cent by some authors. There is increasing realization that the ovary is an important site of metastases in malignancies of the bowel; so much so, that removal of the ovaries is now practiced by many at the time of bowel resection. Other important primary growths which metastasize to the ovary are the stomach, the breast and the cervix.

Krukenberg Tumor.—This is a special tumor which is nearly always secondary to primary carcinoma of the stomach or bowel. This designation is reserved for those tumors which exhibit the typical large swollen signet-ring cells which contain mucoid material. All metastatic gastrointestinal carcinomas which have metastasized to the ovary are not Krukenberg tumors of the ovary. Conversely, Krukenberg tumor may rarely be primary in the ovary. There are cases reported in which no primary site was located elsewhere and in which the patient did well following removal.

SYMPTOMS

Any discussion of symptoms must be prefaced by a reemphasis of the asymptomatic nature of early ovarian carcinoma. In the great majority of cases the patient presents no symptoms until late in the course of the disease.

Abnormal uterine bleeding may occasionally be present with carcinoma of the ovary not of the feminizing type. In such tumors this symptom is relatively rare and the mechanism of its production obscure. The occurrence of such bleeding therefore immediately leads one to suspect either uterine malignancy with secondary ovarian metastases or a feminizing ovarian tumor (granulosa cell tumor or theca cell tumor). The latter are relatively infrequent, although when present, associated abnormal bleeding of some type is the rule.

When a pathologic ovarian enlargement is encountered in a patient with abnormal uterine bleeding, every effort must be made to establish the correct cause of the bleeding, even though the enlargement may be thought to be malignant. It is entirely possible that two entities may be present, and intelligent management must be predicated upon a thorough pre-operative evaluation. To assume that the bleeding is a symptom of the ovarian tumor is unjustified. To assume conversely that the bleeding is from endometrial carcinoma which has metastasized to the ovary is also unjustified even though we may feel that complete abdominal removal of the uterus, tubes and ovaries is indicated in either event. To proceed surgically upon either assumption, without adequate evaluation and diagnosis, may push the surgeon off the end of the proverbial limb. He may find the ovarian pathology to be something less serious than anticipated, something which does not explain the bleeding, and something for which less extensive surgery is indicated. With the bleeding not yet accounted for, the choice of procedure at this point will be difficult to say the least. Moreover, to remove the uterus, ovaries and tubes in this situation only to learn that a carcinoma of the endocervix is present, is a therapeutic blunder. For at no time do we feel that cervical carcinoma should be treated by simple abdominal surgery.

Briefly then, while abnormal uterine bleeding may occur with some types of ovarian malignancy, such bleeding must be carefully evaluated and diagnosed preoperatively, for it may well reflect some other pathology.

Silent ascites, while usually discovered at examination (therefore a sign), may occur to such a degree as to cause the patient to seek medical aid. Such patients report swelling and occasionally bloating or pressure. It is not a rarity for such a patient to enter the hospital on a medical service for differential diagnosis. Any woman with ascites and no other symptom must be suspected of having carcinoma of the ovary.

Gastrointestinal symptoms usually occur only late in the disease. Rarely they may appear relatively early. When present in association with an ovarian lesion suspected of being malignant, we must be alert to the possibilities that (1) the suspected mass is not ovarian, but intestinal, or (2) the mass represents a metastatic carcinoma with the primary site in the gastrointestinal tract.

FINDINGS (SIGNS)

The diagnosis of ovarian carcinoma then, if it is to be made early, depends on the correct interpretation of pelvic findings at bimanual examination, usually in a patient with little or no symptomatology. We will now be concerned with a consideration of the abnormal pelvic findings suggestive of or indicative of ovarian malignancy.

A few preliminary remarks relative to ovarian enlargement in general seem indicated. The ovary during, the childbearing years, is normally a structure of marked and cyclic physiologic activity. Associated with the development of the ova and Graafian follicles and associated with the life cycle of the corpora lutea, cystic formation in the ovary is common. Such cysts are entirely physiologic. During this same period in life, the ovary is fertile ground for the development of many types of true cysts or tumors, true pathologic enlargements.

Surgery for the removal or puncture of follicular cysts, or for removal of a corpus luteum cyst, is not indicated. On the other hand, once it is concluded that a given ovarian enlargement is truly pathologic, immediate surgery is imperative. It is often, if not usually, impossible to diagnose the pathologic nature of any true ovarian cyst or tumor preoperatively. With the possibility of malignancy always in mind, we perform surgery at once.

Given any ovarian enlargement we must first determine whether it is physiologic or pathologic on the basis of the pelvic findings. We have established certain rules by which our management is guided; rules devised to obviate unnecessary surgical procedures and yet to prevent costly errors in diagnosis and therapy.

While the following criteria are somewhat arbitary, they afford a safe working basis for diagnosis and treatment. We consider an ovarian enlargement to be physiologic and to require no active treatment if it fulfills all the following criteria: (1) less than 8 cms. in diameter; (2) freely mobile; (3) smooth walled; (4) does not persist more than 3 months; (5) soft; (6) cystic; (7) unilateral; (8) no other associated pelvic findings.

We would reexamine the patient at intervals of not more than one month if her enlargement fits the above description. As implied, the enlargement should be disappearing or gone within three months if it is physiologic. It goes without saying that any ovarian enlargement in a patient who is postmenopausal must be considered pathologic and requires surgery.

Any ovarian enlargement which does not fit the above description in all ways must be considered pathologic and requires surgical intervention. There is nothing to be gained by conservative management of a pathologic ovarian enlargement. Even though benign, most continue to grow, rendering subsequent removal and conservation of normal ovarian tissue more difficult. Moreover, and more importantly, the ever present hazard of malignancy makes such conservatism dangerous and unwarranted.

Summarily then, any ovarian enlargement larger than 8 cms. in diameter, or one that is fixed, or one that is nodular, or one that persists, or one that is firm or solid must be considered as pathologic. The same is true of bilateral enlargement. To propose that the preceding findings are suggestive of ovarian cancer I feel is justified and warranted in the cause of safe and intelligent management. In other words, the findings of any pathologic ovarian enlargement should immediately suggest the possibility of malignancy making surgical intervention mandatory. It has been estimated that 15 per cent of all pathologic enlargements are malignant.

Let us turn now to a consideration of those findings which are indicative of ovarian cancer; those findings which are characteristic of and indicate its presence. These criteria we enumerate as follows: (1) fixation; (2) solid consistency; (3) irregular and nodular tumor; (4) nodules in the culdesac; (5) omental cake; (6) ascites; (7) rapid growth. In addition it should be pointed out that malignant ovarian tumors are found to be bilateral more than twice as frequently as benign growths.

DIFFERENTIAL DIAGNOSIS

As pointed out, the diagnosis of carcinoma of the ovary is made almost entirely on the basis of pelvic findings. The characteristic findings of ovarian malignancy have been enumerated. On occasion other pelvic pathology may present similar findings which make for confusion. Benign ovarian enlargements, uterine tumors, residues of inflammatory disease, endometriosis, broad ligament cysts and tumors, and carcinoma of the tube are examples of gynecologic entities from which ovarian carcinoma must be differentially diagnosed. In addition we must always bear in mind that extragenital pelvic structures may be the site of various pathologic entities which simulate the findings of gynecologic disease and make for confusion. The lower intestinal tract is most noteworthy in this respect. Other examples are anomalies in the urinary tract (pelvic kidney), lower abdominal and pelvic adhesions following preexisting inflammatory disease (appendicitis, diverticulitis) or surgery, and retroperitoneal tumors (lymphosarcoma).

In connection with differentially ruling our extragenital pathology we find it extremely helpful, if not imperative to include a barium enema study and an intravenous pyelogram in the work-up of all patients suspected of having an ovarian malignancy. In selected cases upper GI studies and proctoscopic examinations are also made. A careful history should afford additional and valuable information especially with regard to gastrointestinal pathology. Change in bowel habit and blood in the stool may be significant, or a story of previous episodes suggesting appendicitis or diverticulitis may shed light on the interpretation of current pelvic findings.

Uterine pathology should be correctly interpreted if we attempt to identify all the genital organs separately at every pelvic examination. If this is accomplished, it should enable us to maintain proper orientation with regard to any abnormal findings encountered. For the most part the identification of two normal ovaries should clarify the differential diagnosis between ovarian malignancy and the various types of uterine pathology. The relationship between endometrial carcinoma and the ovary has been discussed. Myomata should make for little confusion. If there is fixation in the presence of fibroids, we must be alerted, for this finding is not normal with simple fibroids. It suggests either a previous accident with subsequent peritoneal irritation, coincident pathology or a wrong diagnosis. Reconsideration of our diagnosis is in order. Rapid growth of a myoma should also make us wary and alert for the possibility of a mistaken diagnosis. Occasionally a uterine displacement gives an erroneous impression of a pelvic tumor, but again, separate identification of the adnexa and the uterus (cervix and corpus) should eliminate confusion.

Most difficulty is encountered in the differential diagnosis between carcinoma of the ovary and other adnexal diseases. The findings characteristic of ovarian malignancy have been elaborated earlier. Emphasis was particularly given those findings indicative of physiologic enlargements of the ovary for which no intervention is necessary. From a practical clinical viewpoint, any pathologic ovarian enlargement constitutes an indication for surgery; therefore the differential diagnosis between ovarian malignancy and benign tumors is preoperatively a matter of academic interest. We should attempt to make it, however, inasmuch as the definitive treatment may differ and our approach and advice to the patient may be modified.

Broad ligament cysts and tumors may present a problem. Their location may make separate identification from the ovary extremely difficult and their fixation may additionally confuse and concern us. Uncertainly may make surgery advisable for safety's sake.

Residues of pelvic inflammatory disease may also on occasion create much difficulty in the differential diagnosis. The presence of bilateral fixed adnexal masses is cause for concern. Residues of gonorrheal disease are usually soft, elongated, sausage-shaped, rather smooth masses unlike the nodularly, irregular, firm masses characteristic of carcinoma. Residues of the cellulitis type of infections may offer more difficulty due to marked induration, greater fixation, harder consistency and more suggestive contours. The history should help substantially in clarifying this differential diagnosis.

Endometriosis is another of the entities most difficult at times to differentiate from ovarian malignancy. History of acquired dysmenorrhea and pain of some type may help but all too often patients with moderate or severe endometriosis are nearly, if not, asymptomatic. Again fixation is a frequent finding and endometriomata in the ovary create cystic enlargements, often bilateral, resembling in great degree a cystadenoma of the ovary. Even more confusing are the nodules in the culdesac so characteristic of endometriosis. Such nodules almost always mean either endometriosis or carcinoma. While the nodules in endometriosis tend to be rubbery in consistency and painful to palpation, and while those of carcinoma more shotty, firm and painless, this differentiation cannot always be made. In some cases the differentiation between endometriosis and malignancy is impossible and surgery is indicated.

Lastly, carcinoma of the tube may be confused with ovarian malignancy. The findings are quite similar and both are asymptomatic in the early stages. The extremely rare incidence of carcinoma of the tube plus the fact that its treatment is identical with carcinoma of the ovary reduces this differential diagnostic problem to one of academic proportions.

Summarily, if extragenital pathology, the management of which may be different, is ruled out, and sufficient doubt remains as to the nature of the gynecologic pathology, surgery is indicated for the patient in whom any suspicion of ovarian malignancy remains.

TREATMENT

Briefly and in general the treatment of primary ovarian carcinoma is abdominal total hysterectomy plus bilateral salpingo-oophorectomy. We concur in the general belief that postoperative irradiation is indicated and helpful. A course of deep x-ray treatments totalling 8000 to 9000 R is instituted.

Much has been said with regard to preoperative x-ray in carcinoma of the ovary. In selected instances as reported by Parks, and others, it has been of apparent value. Its use however, remains in most cases a problem of academic consideration because the accurate evalution of an ovarian tumor and exact diagnosis must await the findings at surgery and in the pathology laboratory.

In frank primary ovarian cancer the surgery must include removal of the uterus, tubes and ovaries. With extensive involvement, an attempt should be made to remove all the malignant tissue possible, short of endangering the patient's life. This makes for more effective postoperative irradiation. Furthermore, many ovarian carcinomata grow slowly, and the more tissue removed, the greater the prospect of extended comfort and life. We should always keep in mind that one of the primary responsibilities of the physician is to alleviate pain and prolong life. Nowhere is this philosophy more pertinent than in the management of malignancy where we tend, perhaps too often, to consider a given case either cureable or hopeless. There is a large middle ground demanding and challenging our effort.

The definitive management of ovarian carcinoma then, is surgical as above described. Postoperative x-ray treatments are valuable and almost invariably are employed by us. These principles apply to all cases of frank primary cancer. Some modification of management is occasionally followed in certain instances, expecially in certain of the rarer types of primary growths enumerated.

Granulosa cell tumor and dysgerminoma may create a difficult problem with regard to the appropriate surgical treatment. Nearly always they are not diagnosed preoperatively but are encountered as an ovarian solid tumor for which abdominal section was indicated. Moreover, these tumors are frequently found in young individuals in whom a more conservative procedure is strongly desired. It is often impossible to determine the pathologic nature of a solid ovarian tumor at surgery. When then, is it safe to perform conservative therapy in such a situation? If the tumor is unilateral, if the capsule is intact and unperforated, and if there are no evidences of implants or metastases within the abdomen, unilateral oophorectomy with bisection and careful examination of the other ovary is performed, if conservation of ovarian function and child-bearing are imperative.

Necrotic or hemorrhagic areas within a solid tumor of brain-like consistency may suggest a higher grade malignancy of such tumors or may indicate a more malignant teratoma, solid adenocarcinoma or the rare sarcoma. Such findings should make us less inclined to follow a conservative course. The final diagnosis, however, must await tissue study, following which, a second operative procedure may be necessary, if the first were conservative for what proves to be a highly malignant growth. On the other hand, the solid unilateral tumor may prove to be a fibroma, Brenner tumor, or thecoma for which the conservative procedure was adequate and justified.

Perhaps even more difficulty arises in the choice of operative procedure in certain cases of papillary cystic carcinoma of the ovary. It has already been pointed out that all papillary cystadenomata of the ovary are clinically, if not histologically, malignant. In cases of such papillary growths where peritoneal implants are found it is obvious that abdominal total hysterectomy plus bilateral salpingo-oophorectomy is the procedure of choice, even though microscopically, the cytologic criteria of malignancy may be wanting. If there are papillary excrescences on the surface of the tumor capsule, even in the absence of gross implants elsewhere, the same procedure is indicated. The most difficulty arises in the young individual in whom such a growth is unilateral, in whom no external excrescences or gross implants are visible and in whom the papillary formation is confined to the interior of the tumor. If, in such an instance, the microscopic diagnosis is carcinoma, removal of the uterus, tubes and ovaries is indicated. If the histologic picture is not one of malignancy, although papillary, the decision is a hard one. If conservative surgery is contemplated, the other ovary must be carefully evaluated and the surgeon must realize that he is assuming responsibility for his conservative approach to a potentially malignant disease. The circumstances leading to conservative management in such a case must be imperative to warrant its justification.

The management of metastatic ovarian carcinoma resolves itself into the management of the primary malignancy. This in turn implies the need for preoperative evaluation of the patient with a suspected carcinoma of the ovary. The importance of barium enema studies, proctoscopic examination, and intravenous pyelograms has already been pointed out in this connection. So has the need for careful evaluation of the uterus in patients with abnormal bleeding. Following identification and appropriate treatment of the primary growth, malignant secondary ovarian tumors should be removed unless the extent of distant metastases contraindicates.

The value of radioactive colloidal gold in the management of carcinoma of the ovary has recently been much discussed. In a limited experience our results have paralleled those reported in the literature. Its chief, if not only advantage, is to reduce the recurrence rate of ascites, one of the most troublesome accompaniments of ovarian cancer. This is accomplished in close to half the cases, following the intra-peritoneal introduction of 100-125 mcs. of the radioactive gold. The beta irradiation from this material penetrates but superficially and its value in destroying tumor tissue is open to question.

The management of carcinoma of the ovary is confessedly discouraging and the results poor. Compared to 40 per cent carcinoma of the cervix and 50 per cent or higher for carcinoma of the endometrium, the 5 year arrest rate the country over for carcinoma of the ovary is scarcely more than 10 per cent. True, in some clinics, the rate for carcinoma of the ovary is as high as 20 to 30 per cent, but, in these better clinics, the results of

Rheumatic Fever

Public Health Aspects in Missouri

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THERE HAS been increasing emphasis upon rheumatic fever and rheumatic heart disease recently and this is justifiable. Although the mortality figures have shown a decline from 1915 to 1950, rheumatic fever and rheumatic heart disease rank third as causes of death in the age group between 5 and 20.[1] Statistics pertaining to prevalence of the disease are only a rough approximation because there is no specific, reliable laboratory or clinical test for rheumatic fever and because general indifference exists in reporting the disease to health authorities. In a survey[2] of 825,000 white families, it has been estimated that of each 100,000 persons of all ages, 31.5 develop an attack of rheumatic fever during a single year. In a parallel study[2] the number of individuals up to 25 years of age who had a history of rheumatic fever at any time since birth was 4.56 per 1,000. In surveys[2] on school children, the prevalence of rheumatic fever has been reported from two to seven per 1,000 per year.

The figures on the prevalence of rheumatic fever may be more meaningful when one examines data accumulated in Missouri for the last five years while operating the Demonstration Rheumatic Fever Program. These figures are, of course, only approximations of the true prevalence and pertain only to Washington and Jefferson counties. We have taken the figures for the school population from "One Hundred Fourth Report of the Public Schools of the State of Missouri," June 1953, and considered these as the approximate yearly school populations between the years 1949 and 1953. As can be seen from table I, the incidence of acute rheumatic fever in school children is in the range of data reported in the literature.[2] Also, according to the data from the St. Louis Children's Hospital, a general pediatric hospital with about 3,500 new yearly admissions, the number of cases of acute rheumatic fever admitted yearly is in the range reported by Paul[2] (table 2).

Awareness of the importance and seriousness of the disease was recognized a number of years ago by the Federal Government. In 1939 Congress granted an annual appropriation of $1,020,000 to the Children's Bureau for the purpose of starting demonstration rheumatic fever programs in a number of states. Missouri was one of those selected and Dr. Hugh McCulloch, formerly of St. Louis, was appointed director of the program. The annual appropriation was $30,000 to be used for operation of the program in St. Louis, Washington and Jefferson Counties. These counties were selected because of their geographic location; that is, their proximity to St. Louis Children's and allied hospitals of the Washington University Medical School. The program was organized for the benefit of the rural area of the state because organized facilities for the care of children with organic heart disease were lacking. Each of these counties had an organized public health unit which was a requirement for eligibility in this program.

TABLE 1
HOSPITAL ADMISSIONS

Year	*Washington County*	*Jefferson County*
1949	4	5
1950	4	4
1951	4	4
1952	1	2
1953	7	10
School Pop.	3,349	6,300

Children With Acute Rheumatic Fever Admitted to St. Louis Children's Hospital From Washington and Jefferson Counties.

The purpose of this pilot program was to demonstrate: (1) prevention of acute rheumatic fever, (2) effective detection of rheumatic fever and rheumatic heart disease, and (3) diagnosis, therapy

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Ovarian Carcinoma—Continued

the treatment of cervical and especially endometrial cancers are also improved.

As implied throughout this discussion, these poor results stem from the insidious and silent nature of the disease. Pemberton found that about one third, and Meigs one half, of patients with carcinoma of the ovary were "inoperable" when the disease was first diagnosed. Diddle reported in 1949 that only about 6 per cent of ovarian cancers could be completely removed at surgery. The paucity of symptoms, for the most part, explains these unfortunate and discouraging facts. At the same time the importance of accurate interpretation of pelvic findings in carcinoma of the ovary becomes paramount. The importance of routine pelvic examination in turn becomes obvious.

TABLE 2

NUMBER OF ACUTE RHEUMATIC FEVER CASES ADMITTED TO ST. LOUIS CHILDREN'S HOSPITAL

Year	*Number*
1946	42
1947	23
1948	21
1949	35
1950	22
1951	29
1952	62
1953	81
Total yearly hospital load, 3,550	

and general management of youngsters with acute rheumatic fever and rheumatic heart disease.

The structure of the organization of the over-all program is shown in figures 1 and 2. As can be seen in figure 1, the sources of referral of patients are listed. The patients were usually seen in the Itinerant Clinic, but would be sent to St. Louis Children's Hospital Out-patient Clinic for more extensive evaluation, or the patient could be sent directly into the hospital. The entire staff of the Washington University Medical School group was available for consultation. For patients more than 15 years of age, the same facilities were available at Barnes Hospital. Convalescent facilities were available at a small convalescent home where as many as fifteen patients could be handled. Referring physicians were kept informed of their patient's progress by receiving copies of each consultation visit at the Itinerant Clinic, or the Washington University Out-patient Department.

The personnel and services offered by the program are outlined in figure 2. Under the heading, "Services Offered," penicillin prophylaxis is not mentioned, but, of course, this was available and offered to all children being followed. It will be noted that the family physician was kept informed of the progress of his patient through progress reports. These reports were sent after a patient's visit to the Itinerant Clinic or to the Washington University Clinic. The physician also received summaries after a patient's hospitalization or convalescent stay at Ranken-Jordan. If a home visit was made by the county public health nurse or the Rheumatic Fever Program nurse, or the social worker, a report of this was also sent to him.

Since the program was pilot in nature and the prime purpose educational, economic eligibility was not stressed; therefore, the first few visits were free to any youngster until a diagnosis could be made. Any child admitted to the program received all services free when the family was adjudged indigent. This was usually determined by the local public health nurse who was acquainted with most of the people in the area.

It became apparent that the financial scope of the program was too limited to include such a large population area as St. Louis County. It was impossible to organize the area for proper screening. Therefore, the only services offered were facilities for hospitalization of acute cases and follow-up in the out-patient Rheumatic Fever Clinic for the convalescent cases. Penicillin prophylaxis was, of course, made available. In 1951 it was decided to discontinue the program in St. Louis County and a diagnostic and follow-up cardiac clinic was, therefore, organized at the St. Louis County Hospital and admittance to this clinic was determined by the policy on indigency of the St. Louis County Hospital. Penicillin prophylaxis was and is being provided free of charge.

The main efforts of the work were channeled into organizing the program in Washington and Jefferson Counties. It was realized that the program first had to be accepted by the local physician. Repeated individual contacts and group meetings were held and the program discussed. Itinerant diagnostic and follow-up clinics were set up to be held monthly in the two counties. The local physicians were kept informed about their patients by receiving typed copies of the consultation and follow-up visits. Therefore, an intimate relationship

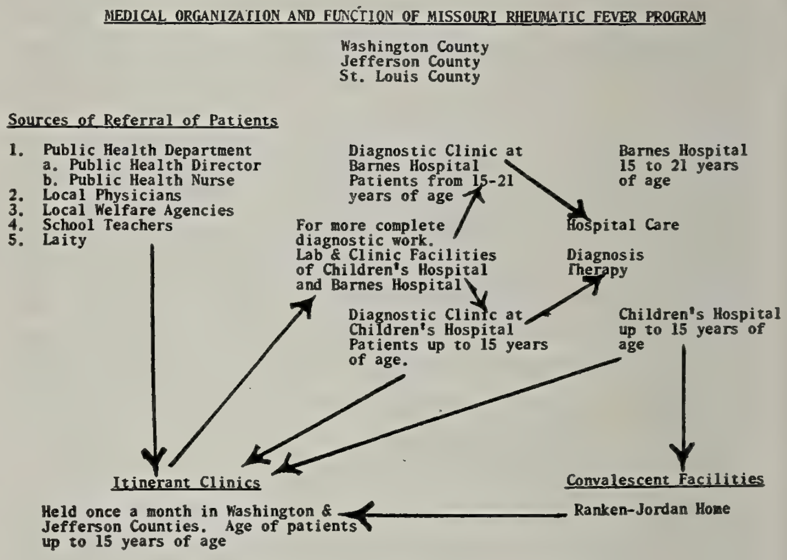
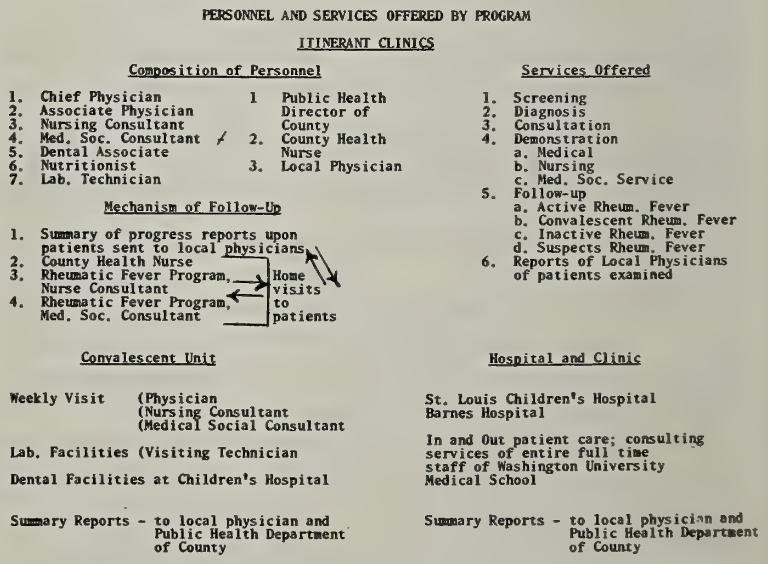

MEDICAL ORGANIZATION AND FUNCTION OF MISSOURI RHEUMATIC FEVER PROGRAM
Washington County
Jefferson County
St. Louis County
Sources of Referral of Patients
1. Public Health Department
a. Public Health Director
b. Public Health Nurse
2. Local Physicians
3. Local Welfare Agencies
4. School Teachers
5. Laity
Diagnostic Clinic at Barnes Hospital Patients from 15-21 years of age
Barnes Hospital 15 to 21 years of age
For more complete diagnostic work. Lab & Clinic Facilities of Children's Hospital and Barnes Hospital
Hospital Care
Diagnosis
Therapy
Diagnostic Clinic at Children's Hospital Patients up to 15 years of age.
Children's Hospital up to 15 years of age
Itinerant Clinics
Held once a month in Washington & Jefferson Counties. Age of patients up to 15 years of age
Convalescent Facilities
Ranken-Jordan Home

Fig. 1. The Missouri Rheumatic Fever Program medical organization and functions.



PERSONNEL AND SERVICES OFFERED BY PROGRAM

ITINERANT CLINICS

Composition of Personnel

1. Chief Physician
2. Associate Physician
3. Nursing Consultant
4. Med. Soc. Consultant ⁄
5. Dental Associate
6. Nutritionist
7. Lab. Technician

1 Public Health Director of County
2. County Health Nurse
3. Local Physician

Mechanism of Follow-Up

1. Summary of progress reports upon patients sent to local physicians
2. County Health Nurse
3. Rheumatic Fever Program, Nurse Consultant
4. Rheumatic Fever Program, Med. Soc. Consultant

Home visits to patients

Services Offered

1. Screening
2. Diagnosis
3. Consultation
4. Demonstration
   a. Medical
   b. Nursing
   c. Med. Soc. Service
5. Follow-up
   a. Active Rheum. Fever
   b. Convalescent Rheum. Fever
   c. Inactive Rheum. Fever
   d. Suspects Rheum. Fever
6. Reports of Local Physicians of patients examined

Convalescent Unit

Weekly Visit (Physician
(Nursing Consultant
(Medical Social Consultant

Lab. Facilities (Visiting Technician

Dental Facilities at Children's Hospital

Summary Reports - to local physician and Public Health Department of County

Hospital and Clinic

St. Louis Children's Hospital
Barnes Hospital

In and Out patient care; consulting services of entire full time staff of Washington University Medical School

Summary Reports - to local physician and Public Health Department of County

Fig. 2. Itinerant Clinic make-up and personnel.

was cemented between the consultant, local physician and public health unit.

Sources of patient supply were the local physician and public health units, and we wished to include the school nurse and school teacher as case finders also. We, therefore, introduced the Wetzel Grid into the schools. The Grid was not new to us, for this chart had been in use for about ten years at the St. Louis Children's Hospital where we had found it to be a useful tool for appraising the growth and development of children. We have shown in a previous publication[3] that growth failure is usually seen with acute rheumatic fever and rheumatic heart disease.

The dramatic manner by which the Wetzel Grid depicts the growth pattern of children may be shown in the following examples: In figure 3 one sees the growth and development of a normal child. The progress is upward and smooth. In figure 4 one sees a child who was in a poor position on the Grid at the onset of her illness, but marked recovery of body physique and rate of growth occurred as the disease abated. In figure 5 is shown the course of a rheumatic child who had numerous bouts of rheumatic fever and the depressant effect upon growth is seen by the irregular growth pattern. This child did not have the benefit of penicillin prophylaxis.

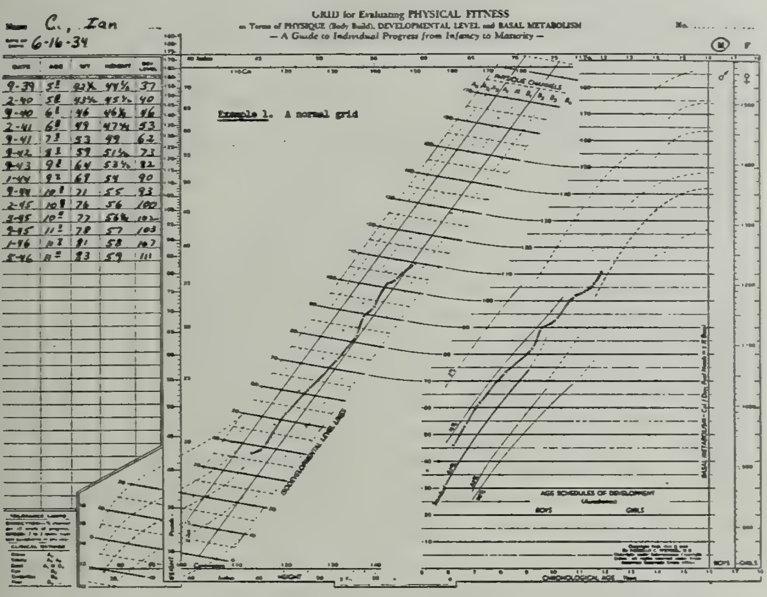


Fig. 3. Growth and development of the normal child.

The introduction of a graphic growth record into a school system was not justified for the primary purpose of helping in case finding of one disease. Obviously, growth failure is produced by any serious chronic disease, and the Grid was introduced with the idea of producing awareness in the teachers of growth and development of the school child and generating alertness to possible presence of disease as reflected in the graphic course of the child's growth and development. Growth records were started in most of the schools in Jefferson County and have been continued for the last three years in about one half of the schools.

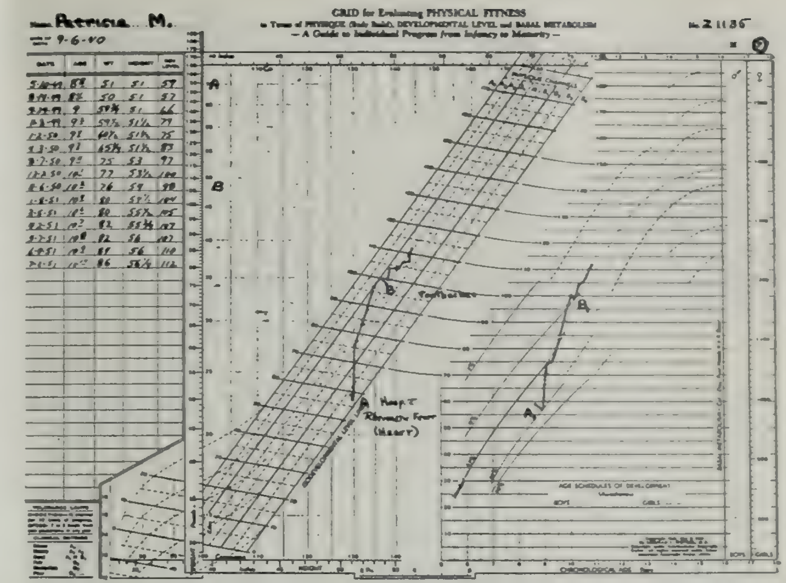


Fig. 4. Grid progress of a child who had an episode of acute rheumatic fever with subsequent marked improvement in growth pattern. This child had the benefit of daily penicillin prophylaxis.

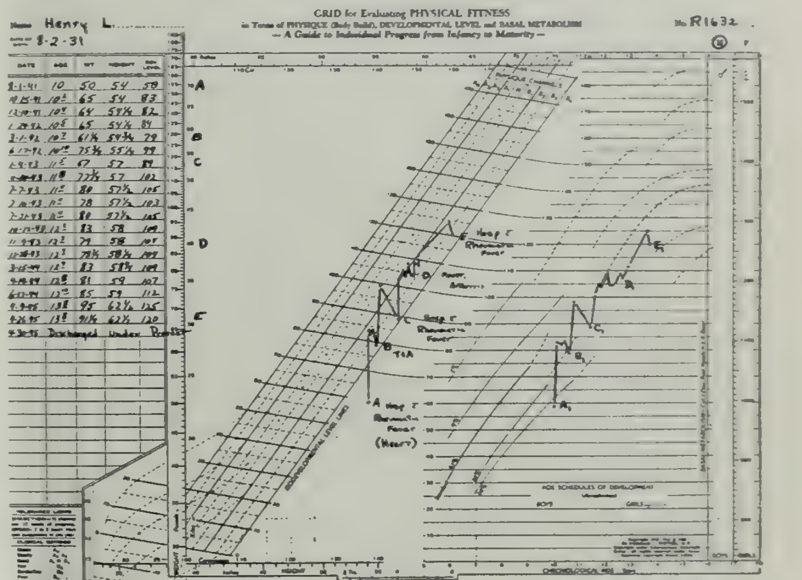


Fig. 5. The irregular growth progress of a child with frequent recurrences of rheumatic fever. This child did not have the benefit of daily penicillin prophylaxis.

The introduction of these growth charts involved numerous teaching and demonstration sessions with the teachers and principals when we also had an opportunity to discuss the subject of rheumatic fever.

Screening clinics were held in each school at yearly intervals and all youngsters were examined as thoroughly as possible. The children had vision tested, urine examined, and all received tuberculin patch tests and peripheral blood evaluations when indicated. Any defects found were noted, and the parents and family physician were notified by written report. Emphasis was given in this appraisal to the whole child rather than merely his heart. Follow-up on remedial measures was attempted as much as possible, but the limited number of active personnel made it difficult to emphasize this important phase of the program.

Enlivened parent interest was evident by an increasingly greater attendance at each screening clinic. We had many opportunities to discuss the

TABLE 3

PERSONNEL AND SERVICES OFFERED BY PROGRAM IN JEFFERSON COUNTY

(as reorganized July 1, 1955)

Clinical Personnel	*Health Department Personnel*
1. Associate Professor of Pediatrics Washington University	1. Public Health Director (County)
2. Pediatric Residents	2. Public Health Nurses (County)
3. Laboratory Technician	3. Part-Time Dentist
4. Nursing Consultant	4. Nutritionist (State Division of Health)

Rheumatic Fever Clinic

Once a month in County (Under contractual arrangements between Washington University and County Health Department)

Services in County Clinic

1. Follow-up visits in home.
2. Reports to referring physician.
3. Penicillin for those unable to purchase.
4. Medical supervision (cooperative between attending physician and clinic physician).
5. Nutrition Consultation.
6. Dental care for children from medically indigent families.

Auxiliary Services Available to Rheumatic Fever Patients

1. Convalescent Center care.
2. Cardiac x-rays.
3. Hospitalization at family expense or County expense, as indicated.

subject of rheumatic fever with the parents individually and at occasional P.T.A. meetings.

The Itinerant Clinics became well established and were well received in both Washington and Jefferson counties, and case finding sources were expanded to include school teachers and parents.

The program continued, but expenditures had to be reduced. In 1954 and 1955 Itinerant Clinics were held only in Jefferson County and the children from Washington County were required to come there, so that the limited budget would not be exceeded. Those who did not have transportation usually were brought by the public health nurse.

It was hoped that the demonstration program eventually would become state wide in scope. It was not possible to accomplish this when the state legislature failed to increase the yearly appropriation to the Crippled Children's Program. As of June 1955, the appropriation from the Children's Bureau came to an end and with it the Rheumatic Fever Demonstration Program.

When it became evident that this program, which took ten years to develop, was coming to an abrupt end, the health officer of Jefferson County persuaded the Board of Directors of the County Health Unit to appropriate funds for a monthly diagnostic and follow-up clinic which was to be held in the Jefferson County Health Department Building.

Since the available financial support was limited, the program in its new form was confined to the support of this monthly clinic. This program is now in its second year. The personnel and services offered by the program are shown in table 3, and the general outline of the new program is as follows:

1. To disseminate the latest medical information about rheumatic fever.

2. To emphasize the prompt treatment of youngsters with sore throats, especially those suspected of being due to hemolytic streptococci. This educational program is aimed at the family physician, school teacher and parents.

3. Monthly diagnostic and follow-up itinerant clinics are held where youngsters suspected of having rheumatic fever are seen. The clinic is attended by a visiting consultant from the St. Louis Children's Hospital. The function of the consultant is not only to verify the presence of rheumatic fever or rheumatic heart disease, but to fulfill the equally important duty of removing the stigma of rheumatic disease from incorrectly diagnosed cases. Typed copies of the consultations are sent to the referring family physician. A technician is available for simple laboratory procedures and electrocardiograms. Nurses of the Jefferson County Health Department follow patients by home visits. Should x-ray evaluation be necessary, facilities are provided at the Washington University Medical School.

4. The County Court assumes the financial responsibility of hospitalizing children with acute rheumatic fever whose parents cannot provide this. However, organization and emphasis of the clinic is aimed at home care. The brunt of the care is shouldered by the family physician, public health nurse and home teacher. Such a plan has never really been organized in a rural area, and it will be interesting to see what progress can be made. Successful home care programs, of course are not new in urban centers.[4]

5. Convalescent care is provided at the Ranken-Jordan Home, a small convalescent unit about thirty miles from Jefferson County. There are facilities for about thirty youngsters. A resident graduate nurse is in charge. In addition, there is a resident occupational therapist and a resident school teacher. The children are seen weekly by a consultant from the St. Louis Children's Hospital and a technician is available for periodic laboratory evaluation of patients.

6. Penicillin prophylaxis is provided to medically indigent patients by the Jefferson County Health Department.

7. The rheumatic fever registry of patients, which was started ten years ago, is being continued. The importance of this is obvious, since it provides for better organized follow-up, serves as an accurate source of statistics on the incidence and mortality of the disease, and provides a means for evaluation of the medical management of the patients.

This is an example of how one county has handled the problem. The organization of this plan is by no means perfect, but the minimal requirements of a rheumatic fever program have been met. The response of the people of Jefferson County demon-

Rheumatic Fever

A Proposed Program for the City of Saint Louis

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THIS REPRESENTS an introduction into a field of public health which until recent years has been all too neglected. The time has arrived when the health department must broaden its scope of activities to include a consideration of the chronic diseases in its program planning. This planning must be translated into action if the citizens are to enjoy the utmost in healthful productive living.

One of the most pressing problems in the field of chronic disease control lies in the realm of heart diseases. It is widely recognized that more than 50 per cent of all deaths in the country today are directly attributable to diseases of the heart and blood vessels. Too long has it been the conception of professional and lay people alike that premature death from arteriosclerotic, hypertensive and rheumatic heart diseases is an inevitable conclusion to an irreversible chain of events.

Today, thanks to eradication and prevention programs directed at the venereal diseases, syphilitic heart disease is becoming a rarity on medical wards. The day is foreseeable, it is believed, when another crippling disease, rheumatic fever and its all too frequent consequence, rheumatic heart disease, may be eradicated.

While it is true that much progress has been made in the fields of medicine and pediatrics in treatment of this disease, and while cardiovascular surgeons today are operating upon malformed hearts with favorable results, one must not be content with this alternative. It is believed the greatest service may be rendered in preventing disease rather than in treating the disease after it has developed.

It is common knowledge today that there is a direct relationship between the Lancefield Group A beta hemolytic streptococcal infection and subsequent development of rheumatic fever. While the mechanism of this sequence of events is not clear, it becomes obvious that the control of rheumatic fever probably lies in the control of this infection.[1-5] This would amount to primary prevention of the disease.

Equally important in the development of rheumatic heart disease are recurrences of acute rheumatic fever in a given patient who has experienced an initial attack. Here then is a field of secondary

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From Heart Disease Control Program, United States Public Health Service.

Rheumatic Fever—Continued

strates the rewards of the ten years of the demonstration program.

Washington County has worked out an arrangement with Jefferson County whereby a limited number of youngsters from Washington County are brought in for examination to the planned Jefferson County monthly itinerant clinic and penicillin for prophylaxis for the indigent children is also available.

The program just described represents the only effort which approaches complete care for the child with organic heart disease in rural Missouri. There is a small convalescent center for children with rheumatic fever and rheumatoid arthritis and a diagnostic heart service for children and adults in Kansas City, Missouri, but the rural area serviced is quite small. There is also a newly organized Ozark Regional Cardiac Consultation Clinic which meets in Springfield, Missouri, and offers diagnostic services.

The problem of complete care for children with organic heart disease in the State of Missouri is obviously much too large for the above organizations to handle. What is needed is a state-wide organization for the child with organic heart disease which should be incorporated in the present Crippled Children's Program. According to the published summary by the Helen Hay Whitney Foundation of public and voluntary health agency activities for rheumatic fever and rheumatic heart disease, twenty-nine states have such a program in operation. These states include the children with organic heart disease in their definition of a crippled child and offer complete care.

Although the State of Missouri includes the child with organic heart disease in the definition of a crippled child, no funds have been allotted for the care of such children in the existing State Crippled Children's Program.

It is hoped that this report may stimulate interest so that efforts may be made toward the establishment of such a state-wide program for the complete care of the child with organic heart disease.

BIBLIOGRAPHY

1. Studies in Rheumatic Fever, Metropolitan Life Ins. Co., New York, New York.
2. Paul, J. R.: The Epidemiology of Rheumatic Fever and Some of Its Public Health Aspects, Metropolitan Life Ins. Co., 1943.
3. Kahn, L.; Brown, G., and Goldring, D.: Wetzel Grid Analysis of Rheumatic Children, J. Ped. **41**:47, 1952.
4. Home Care, Montefiore Hosp., New York, 1949.

prevention. That is, if one is able to prevent streptococcal infections in a patient who is a victim of the "rheumatic state" then one may reasonably expect to prevent recurrences of rheumatic fever and in a great percentage of cases, prevent rheumatic heart disease.[6-9]

A real need is felt for a well organized program aimed at secondary prevention of rheumatic fever in St. Louis. A review of the recent medical literature concerning community rheumatic fever programs will reveal that many of the programs have been promoted in relatively small communities.[10-16] To directly apply mechanisms of program administration of those communities to a larger city seems hardly feasible. Therefore, several modifications are necessary to provide an efficient, valuable program to St. Louis. The program proposed is patterned in several respects after a workable plan currently in operation in Chicago, Illinois.

Before embarking upon a program of this type the need for it must be justified. In St. Louis, acute rheumatic fever is a reportable disease by health ordinance, yet only four to six cases are reported yearly. Yet, on the basis of national averages one would assume that there are about 2,000 people in St. Louis who are or have been afflicted with the rheumatic state.[17]

The percentage of these people who are under medical supervision and the actual number who are on prophylactic drugs is not known. These facts in themselves would justify the establishment of a rheumatic fever registry. The registry however is not designed nor is it expected to function as a statistical device in which patients' names are filed to be forgotten. It is expected to function as an instrument in evaluating patients' needs and in making it possible for these needs to be adequately met.

A second phase of the program would involve furnishing prophylactic drugs to the medically indigent, upon a physician's prescription, for purposes of preventing recurrences of rheumatic fever.

These two objectives constitute the major aims in developing an initial program in heart disease control. These will be amplified later. In conjunction with these major objectives, several ancillary services are planned. Among these is an educational program directed at public health nurses, among others for they can serve an important function in case finding. School health authorities have expressed interest in such a program and indicate a willingness to cooperate in it. The St. Louis Heart Association is particularly interested, and it is anticipated to cooperate wholeheartedly with this local organization in putting the plan into operation.

In 1954 the Committee on Community Rheumatic Fever Programs of the Council on Rheumatic Fever and Congenital Heart Disease of the American Heart Association published an informative manual entitled "Community Rheumatic Fever Programs."[11] This contains valuable information for anyone interested in planning such a program. This committee lists six minimal requirements for a community considering establishment of a program. Briefly these requirements are:

1. An agency or group which accepts full responsibility for the program.
2. Rheumatic fever consultation clinics, for diagnostic verification of all cases.
3. Case finding through local physicians, clinic personnel, public health nurses and teachers.
4. Provision for institutional care during the acute phase, or in cases where home conditions are inadequate.
5. Prophylaxis program through continuous use of sulfonamides or penicillin.
6. Periodic evaluation of services offered.

It is believed that the St. Louis community can now adequately fulfill the first four conditions. The city is fortunate in having two medical schools as well as several fine private hospitals which maintain cardiac clinics. Several of these could serve as consultation clinics. The St. Louis Heart Association or the St. Louis Division of Health may be consulted for information concerning these clinics.

Of primary importance in planning any heart disease control program is local physician support and cooperation. No program should in any way detract from the doctor-patient relationship. The health department must function to bring the patient to the doctor to ensure adequate medical supervision. Furthermore, local initiative and planning is essential if a program is to be accepted. Therefore, it is impossible to lay down a complete prospectus for the program at this time. It is expected that the details of it will necessarily be handled by a local committee of lay and professional people. However, basically the following plan is suggested.

1. *Case registry*—This would become the responsibility of the St. Louis Health Division. The registry would be housed in the department and staffed by its personnel. It is expected that one part-time clerk-secretary will be needed for its proper functioning initially. Later, as the volume of work increases, a full time person will be required. The registry is expected to be set up in conjunction with the communicable disease division, utilizing the experience and talents of personnel who currently are well oriented in the workings of a tuberculosis registry. The program would work initially through the established outpatient clinics in the teaching hospitals as well as private hospitals which desire to cooperate in the program. A given patient will be registered with the registry through forms furnished the clinic by the health department. This form will provide for certain basic information about the patient. The exact items to be included will be decided by a local committee. This information will then be tabulat-

ed in the central registry. To appear on the form would be such items as age and diagnostic criteria at initial attack of rheumatic fever, evidence of residual heart damage, and whether on prophylaxis. On the original form filled in by the clinic would be space for recording the date of the next scheduled clinic visit. Approximately ten days prior to the next scheduled visit the clinic will be mailed a card asking for certain information such as evidence of recurrences, whether continuing on prophylaxis, or change in cardiac status. If the patient did not return for his scheduled appointment provision will be made for adequate follow-up. This process will be repeated with subsequent visits.

2. *Prophylactic medications*—The following is a quotation from the recommendations of the Committee on Prevention of Rheumatic Fever and Bacterial Endocarditis of the American Heart Association.[18] "Many streptococcal infections occur without producing clinical manifestations. For this reason, prevention of recurrent rheumatic fever must depend on continuous prophylaxis rather than solely on treatment of acute attacks of streptococcal disease."

This then is justification for an aggressive program to ensure that patients who have had rheumatic fever are maintained on prophylactic drugs. Basically the mechanics of dispersing the drug would provide the following:

A. The patient must be registered on the central registry to become eligible for free prophylactic drugs under the St. Louis Rheumatic Fever Prevention Program.

B. The patient must be certified as medically indigent by the attending physician.

C. It is expected that drugs will be purchased in bulk quantities by the St. Louis Division of Health and dispersed to the dispensaries in the various hospitals cooperating in the program. The choice of drug used will be left entirely to the discretion of the attending physician. This includes oral penicillin and sulfadiazine is well as injectable long-acting penicillin.

D. Printed upon the card which is sent to the clinic prior to the patient's visit will be a prescription form which, when signed by the attending physician, may be honored by the hospital pharmacist. The hospital dispensary's supply of drugs will be replenished on requisition at regular intervals through the health division's representative of the program. The completed form will then be returned to the central registry. In general, enough drugs may be provided at a given clinic visit to supply the patient until his return for his next appointment.

It is expected, in this manner, not only to keep the patient on his drug, but also to afford regular medical supervision.

It is felt that this type program will be welcomed by the medical profession in St. Louis. Response to the idea of such a program has been most gratifying among physicians contacted to date. Judging from the experience of those working with the program in Chicago, inquiry from private physicians who would desire to have their rheumatic patients admitted to the program would be expected. These patients would be eligible for services rendered through the program providing they fulfill the requirements of (1) medical indigency and (2) are registered on the central registry.

This then represents a basic plan, for which the St. Louis Division of Health in cooperation with the St. Louis Heart Association would shoulder most of the responsibility. Ancillary activities such as educational programs, printing of a directory of services, and assistance in follow-up would be shared with the St. Louis Heart Association, Visiting Nurses Association, Public Health Nurses and other social and civic organizations.

Providing that grant-in-aid funds may be obtained for initiating the program on a demonstration basis, it is expected that within a two year period the St. Louis Division of Health will absorb the expense into its annual operating budget. In this manner the program will become a self propagating one which will earn and assume a permanent role in recognized public health activities.

BIBLIOGRAPHY

1. Chamovitz, R., et al.: Prevention of Rheumatic Fever by Treatment of Previous Streptococcal Infections, New England J. Med. **251**:466-471 (Sept. 16) 1954.
2. Diehl, A. M.; Hamilton, T. R.; Keeling, I. C., and May, J. S.: Long Acting Repository Penicillin in Prophylaxis of Recurrent Rheumatic Fever, J.A.M.A. **155**:1466-1470 (Aug. 21) 1954.
3. Kuttner, A. G.: Prevention of Rheumatic Fever and Rheumatic Heart Disease, Postgrad. Med. **14**:429 (November) 1953.
4. Massell, B. F., et al.: Prevention of Rheumatic Fever by Prompt Penicillin Therapy of Hemolytic Streptococcus Respiratory Infection, J.A.M.A. **146**:1469-1474 (Aug. 18) 1951.
5. Stollerman, G. H.: The Prevention of Rheumatic Fever, Am. Prac. & Dig. Treat. **5**:589 (August) 1954.
6. Baldwin, J. S.: Sulfadiazine Prophylaxis in Children and Adolescents With Inactive Rheumatic Fever, J. Pediat. **30**:284-288 (March) 1947.
7. Diehl, A. M.; Hamilton, T. R., and May, J. S.: Prevention of Recurrent Rheumatic Fever, South. M. J. **49**:250-259 (March) 1956.
8. McCue, C. M.; Gibson, C. D., Jr., and Lindemann, L. C.: A Comparison of Intramuscular Benzathine Penicillin and Oral Sulfonamide in the Control of Rheumatic Recurrences, J. Pediat. **47**:450-460 (October) 1955.
9. Stollerman, G. H.: The Use of Antibiotics for the Prevention of Rheumatic Fever, Am. J. Med. **17**:757-767 (December) 1954.
10. Beach, M. W.: Your Rheumatic Fever Program in Action, J. S. Carolina M. A. **48**:157 (June) 1952.
11. Committee on Community Rheumatic Fever Programs, Community Rheumatic Fever Programs, Am. Heart Assn., pp. 16-17, March 1954, Revised July 1955.
12. Grubschmidt, H. A.: Elements of a Rural Rheumatic Fever Program, J.A.M.A. **162**:102-105 (Sept. 8) 1956.
13. Smith, M. A.; Fried, A. R.; Morris, E. M.; Robbins, L. C., and Zukel, W. J.: Rheumatic Fever Prophylaxis, A Community Program Through the Private Physician, J.A.M.A. **149**:636 (June 14) 1952.
14. Smith, M. A.: Community Program for Prevention of Rheumatic Fever Recurrence, Pub. Health Rept. **68**:16-19 (January) 1953.
15. Wheatley, G. M.: Community Rheumatic Fever Programs, Pediat. **14**:78-81 (July) 1954.
16. Zukel, W. J.; Hilleboe, H. E., and Doyle, J. T.: Cardiovascular Disease Programs for the Community, Pub. Health Rept. **71**:425-435 (May) 1956.
17. Wegman, M. E.: Some International Aspects of Rheumatic Fever, Pediat. **15**:627 (May) 1955.
18. Committee on Prevention of Rheumatic Fever and Bacterial Endocarditis, Charles H. Rammelkamp, Chairman, Circulation **15**:154 (January) 1957.

Case Report

Carbon Dioxide Intoxication

Exposure to Dry Ice

A. L. WALTER, M.D., *Sedalia*

THE DANGER of poisoning from exposure to various gases and vapors, such as carbon monoxide, carbon dioxide, hydrogen cyanide and the various war gases, is well established. Inert gases, such as nitrogen, assume importance when they attain sufficient concentration to reduce the oxygen present in inspired air.

CASE REPORT

Mr. T. J., male, aged 40, purchased sixty gallons of ice cream sealed in cartons packed with one hundred pounds of dry ice. The cartons were placed on the floor and back seat of his four-door sedan, thus using nearly all available space. The car stood with the windows closed for about fifteen minutes before Mr. T. J. entered and drove eight blocks and picked up his mother. The outside temperature was slightly above freezing, and it was raining. The car heater was in full operation.

Mr. T. J. and his mother drove about six or seven blocks, when he complained that he could not breathe. He steered over to the curb and slumped forward over the steering wheel. His mother left the car, leaving the door open. She contacted a physician, who arrived in about ten minutes. At that time, Mr. T. J. was awake, alert and cooperative. The physical examination was noncontributory, and he insisted that he was well. He drove the car home, seven blocks away, where a further and more complete examination was done. The heart and lungs were normal; the skin color was good; the blood pressure, respiration, pulse and temperature were all normal.

About thirty minutes later, Mr. T. J.'s mother entered the car, which had been left closed, and started to deliver the ice cream to a nearby town. After driving eight blocks, she began to yawn and felt drowsy. She then became unconscious and the car ran off the street, coming to rest against a highway marker. The patient was taken by ambulance to the hospital. She was hysterical but showed no evidence of injury except for a small bruise of the forehead. The skin color was normal; the lips and nails showed no cyanosis; the pulse was 72; the blood pressure was 105/78 (normal was known to be about 130/80); hemoglobin was 14.0 gm.; red cell count was 4,890,000 and white cell count 13,700. Carbon monoxide poisoning was suspected although the characteristic cherry-red color of the skin was not seen. She remained in the hospital over night.

Both patients complained of a dull headache for three or four days, but no other ill effects were noted.

A police officer who investigated the accident entered the car and started the motor. He reported that the car filled with fumes immediately, but a thorough check of the car at a garage revealed no exhaust leaks. Further investigation revealed the presence of the large quantity of dry ice and led to the conclusion that carbon dioxide was the real offender.

DISCUSSION

It is known that a number of individuals in this area use dry ice as a cooling agent in automobiles during hot weather. Since they drive with the windows closed, a potential hazard exists of which they are entirely unaware. Automobile accidents which have occurred in the past may have been due to the side effects of carbon dioxide intoxication.

The National Safety Council Pamphlet[1] states that carbon dioxide in 10 per cent concentration may produce unconsciousness and that larger quantities may cause death by suffocation.

Quinn and Jones[2] state that concentrations of carbon dioxide higher than 20 per cent have a narcotic effect and tend to stop respiration, even with a sufficient supply of oxygen.

Gonzales, Vance, Helpern, and Umberger[3] report twenty-five cases of asphyxia by dry ice, in dock workers in New York harbor. A number of these cases resulted in fatalities. These workers were packing foods and vegetables with dry ice in the holds of ships. They also give case histories of several individuals who were overcome while working in dry ice plants.

Hubert Meesen,[4] of Germany, while investigating the effects of carbon dioxide on employees of wine cellars, cold storage plants and submarines, subjected experimental animals to concentrations of carbon dioxide ranging from 1 per cent to 26 per cent. He made no report of fatalities but found degenerative changes in the lungs, livers, kidneys and brains of the animals he studied. He concluded that these lesions were the result of the increased carbon dioxide tension and were not caused by anoxemia.

SUMMARY AND CONCLUSIONS

Two persons were overcome by carbon dioxide from dry ice carried in a closed automobile. Dry ice may have been the cause of other automobile accidents in the past.

Dealers in dry ice should be alerted to this danger and should warn customers to have adequate ventilation in cars carrying dry ice.

120 W. Fifth St.

BIBLIOGRAPHY

1. National Safety Council: The Safe Practice Pamphlet No. 95.
2. Quinn, E. L., and Jones, C. L.: Carbon Dioxide, Chapman and Hall, London, 1936.
3. Gonzales, T. A.; Vance, M.; Helpern, M., and Umberger, C. J.: Legal Medicine, Pathology, and Toxicology, Appleton-Century, New York, 1954.
4. Meesen, Hubert: Experimental Studies, Arch. Path. 45:36 (Jan.) 1948.

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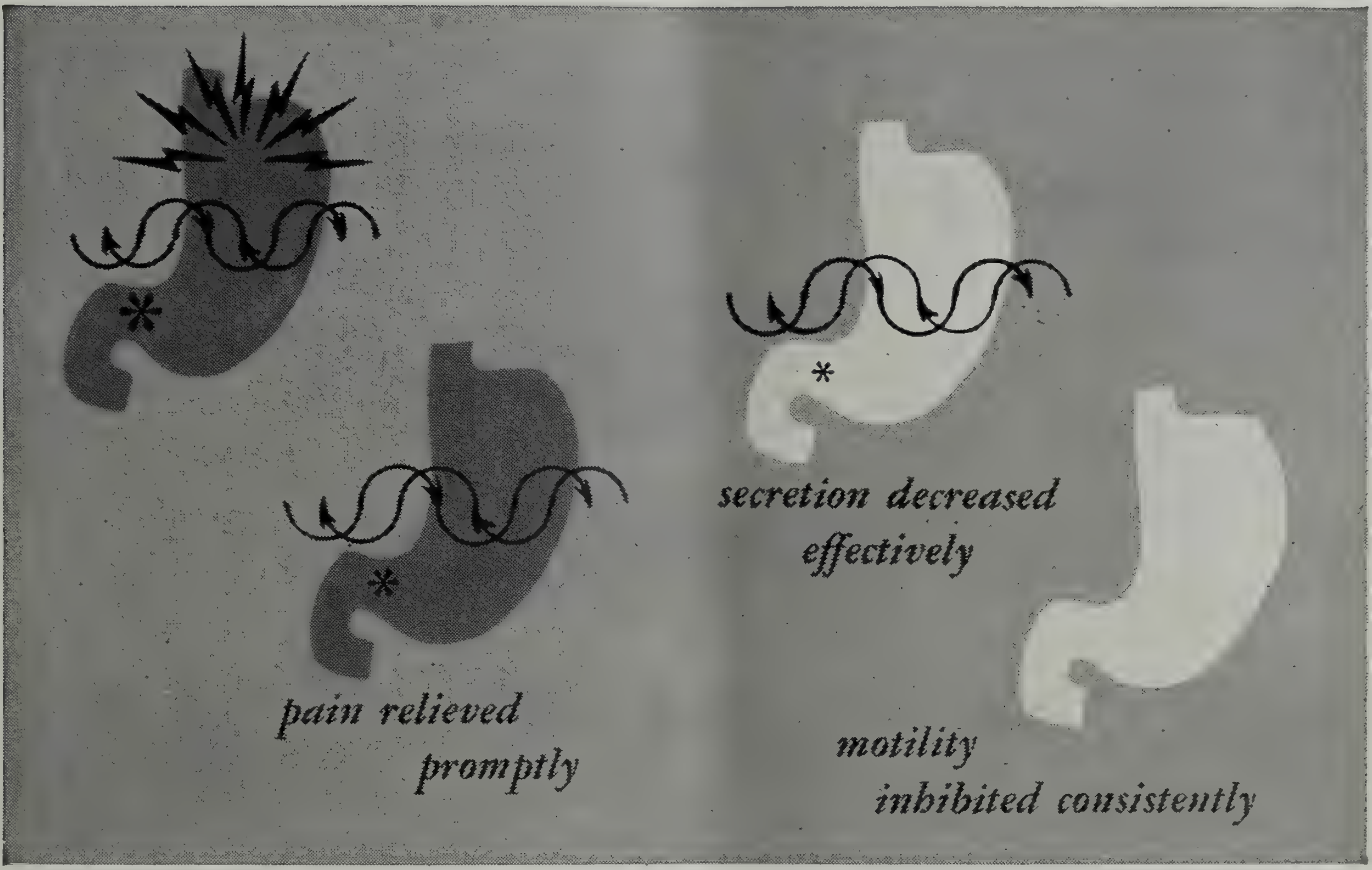
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pain relieved promptly
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Among the many clinical indications for Pro-Banthīne (brand of propantheline bromide), peptic ulcer is foremost. During treatment, Pro-Banthīne has been shown repeatedly to be a singularly valuable agent when used in conjunction with diet, antacids, sedation and psychotherapy as required. Lichstein and his associates* report that Pro-Banthīne "proved almost invariably effective in the relief of ulcer pain, in depressing gastric secretory volume and in inhibiting gastrointestinal motility. The incidence of side effects was minimal. . . ."

The therapeutic utility and effectiveness of Pro-Banthīne in the treatment of peptic ulcer are repeatedly confirmed in the medical literature. Dosage: One tablet with each meal and two tablets at bedtime. G. D. Searle & Co., Chicago 80, Illinois, Research in the Service of Medicine.

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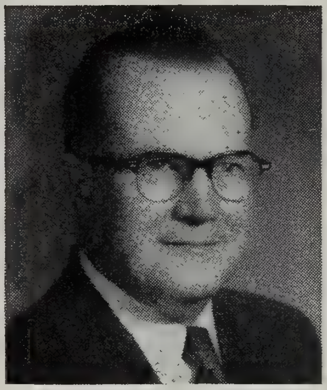
*Lichstein, J.; Morehouse, M. G., and Osmon, K. L.: Pro-Banthīne in the Treatment of Peptic Ulcer. A Clinical Evaluation with Gastric Secretory, Motility and Gastroscopic Studies. Report of 60 cases, Am. J. M. Sc. *232*:156 (Aug.) 1956.

SEARLE

President's Page

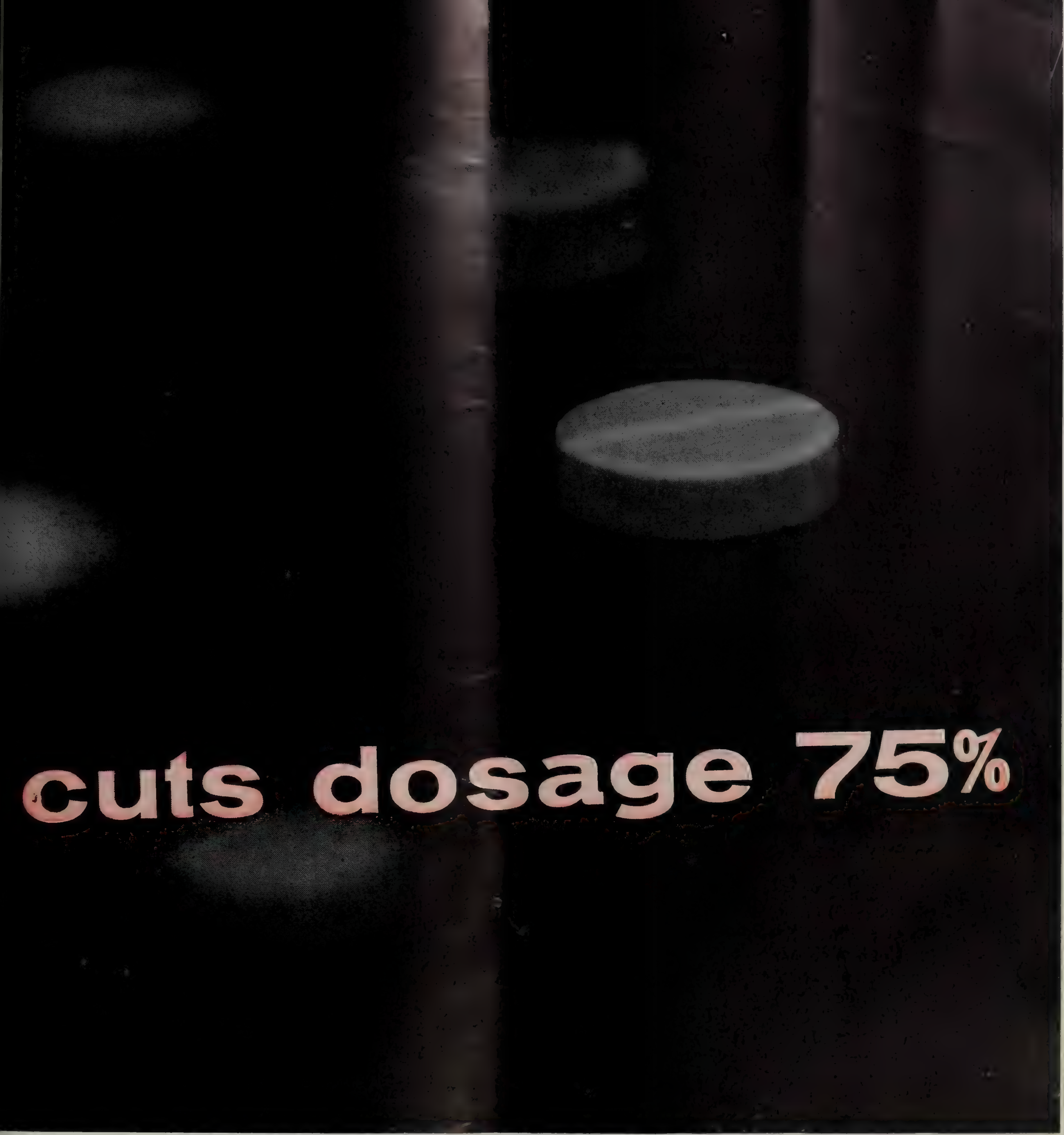
By the time of this publication, new Committee members and Chairmen of Committees will have been notified of their appointments. To me, the recommendations made to the Council and House of Delegates by our Committees represent the very foundation of our activities. Therefore, at our Annual Session in Kansas City I requested that the newly appointed members and Chairmen please advise the office of their willingness to accept the appointments. If you are unable to serve, please let us know so that another person may be named in your place.



A complete list of all committees, as well as the official transactions of the House of Delegates, will be published in the July issue of MISSOURI MEDICINE. I urge all members to read that issue carefully and to contact the Committee members, Councilors or officers about any subject of interest.

Remember, this is your Association—the Committees are appointed to help set policy which may affect you and your practice.

WALTER S. SEWELL



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EDITORIALS

What the Society Does for You

The following editorial appeared in the March 13 issue of *The Bulletin of the St. Louis Medical Society* and is reprinted, with permission, that members of the Missouri State Medical Association outside of St. Louis may have the opportunity of reading it.

"What the St. Louis Medical Society accomplishes for medicine was given a capsule outline in the program for house officers which could be enlightening for some of our members who are too busy to attend Society meetings.

"Since this program followed the annual dues payment time for the Society, the Missouri State Medical Association and the American Medical Association, it serves to answer the oft-recurring question, 'What Happens to My Dues?' No amount of money you may spend or invest otherwise yields a better return.

"The local Medical Society is the foundation and the key group of all organized medicine, an integral and component part of the State Medical Association, which, in turn, is a necessary member of the American Medical Association. This arrangement provides a closely knit, logical and thoroughly democratic group of organizations, closely resembling governmental bodies on local, state and federal levels, which are dedicated to the best interests of the profession and the public health.

"Most members are familiar with all these facts but relatively few are familiar with the many services the organizations render to members (and non-members); few realize the day-by-day, year-around, seen and unseen services that are handled for membership as a matter of routine.

"The St. Louis Medical Society housed in its own commodious building provides a meeting place for scientific and social gatherings and houses a medical library of no mean proportions, available to all members.

"There are 14 standing committees and 50 special committees, besides the elected officers and Council, who are continuously working in your interest and in your name. To each is assigned one or more special or continuing problems directly affecting the profession or the public health. They are serving you and in your behalf.

"It has been noted that too many willing but untrained and incapable hands are anxious to take over medical privileges and duties. This presents a problem we must meet and correctly solve or give up our heritage by default. New disease threats, scores of wonder drugs, fantastic surgical advances, third-party insurance plans, governmental legislation, socialization schemes of "do-gooders" or self-advancement organizations, the corporate practice of medicine by groups or organizations who want to "get into the act" at a profit of course, public health improvements, medical education, and public relations are only a few of the many subjects assigned to our committees.

"How many individual physicians would, if they could, encompass such a multitude and diversification of services themselves? These things cannot be done by individuals. Even if some could, the effect is better and more certain when done in unison. If deliberations regarding preventive public health measures, insurance plans, the doctors' draft, fees for the Medical Care of Dependents of Service Personnel, control of an epidemic or disaster had to be carried out with individual physicians the time and cost factors would be prohibitive, the results chaotic and the alternative either a dictatorial edict or socialization. Where then would be the self-sufficient, individualist practitioner?

"Physicians today recognize that each of us is inextricably indebted to centuries of medicine for his art and science; that to protect and preserve the profession and the public health is an obligation that only unity of action can provide."

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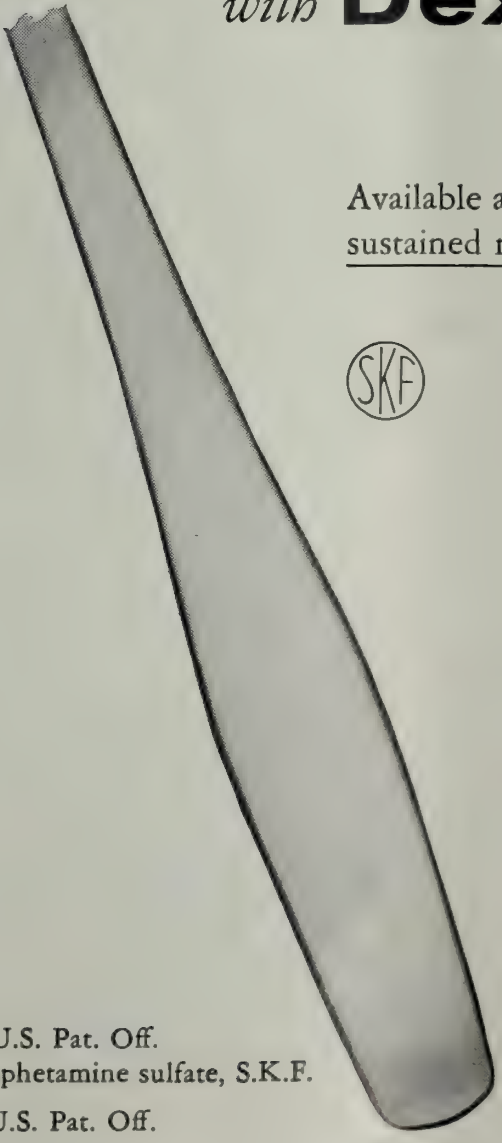

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Musings of the Field Secretary

Approximately seven hundred people attended the 12th National Conference on Rural Health at Louisville, Kentucky, March 7 to 9.

Among these 700 rural health minded folks were many doctors representing various state medical associations. Dr. P. V. Siegel of Smithton attended from Missouri.

This annual conference is sponsored by the Council on Rural Health of the A.M.A. in cooperation with state medical associations, rural health committees, national farm organizations and other farm leaders. Its basic purpose is to bring those people most concerned with rural health problems together for exchange of ideas and information and to promote cooperative endeavors for solving these problems. The conference is held in a different section of the United States each year and, consequently, many different health problems are considered.

Some of the discussions at this 12th National Rural Health Conference concerned: "Problems and Progress in Medical Education," by Dr. E. L. Turner, Secretary, Council on Medical Education and Hospitals of the A.M.A.; "Problems of Medical Schools," by Dr. J. Murray Kinsman, Dean of the University of Louisville School of Medicine; "The Medical Care for Migrant Agricultural Workers," by Dr. V. N. Slee, of Hastings, Michigan; "The Economic Situation in Agriculture," by J. C. Bottum, Assistant Head, Agricultural Economics, Agricultural Extension Service, Purdue University; "The Why in Hospital Costs," by Mary Schabinger, Administrator, Detwiler Memorial Hospital, Wauseon, Ohio; "Rising Costs of Medical and Hospital Insurance," by Dr. C. S. Mundy, Vice Chairman, Council on Rural Health, A.M.A., Toledo, Ohio; "Changing Scenes in Rural Health," by Dr. L. E. Burney, Surgeon General, USPHS, Washington, D. C.; "Rural Aspects of the Problems of Aging," by Dr. H. B. Mulholland, Chairman, Committee on Aging, A.M.A., Charlottesville, Virginia, and "I'm Heading for Country Practice," by Dr. Charles Bush of Kirkland, Indiana.

As for the value of the conference, these highlights of the conference program speak for themselves.

On Tuesday evening, March 5, yours truly had the privilege of addressing the Student A.M.A. Chapter at the University of Missouri Medical School. The topic discussed was "Opportunities for the Practice of Medicine in Missouri." It was a real pleasure to meet and talk with these "to be" doctors about the great state of Missouri and the practice of medicine therein.

Missouri Medical Meetings

Missouri State Medical Association Annual Session, St. Louis, April 13-16, 1958.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Society—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—third Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—fourth Tuesday of each month except June, July and August, at auditorium of General Hospital No. 1.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets only on call.
Johnson County Medical Society—meets only on call.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark-Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Webster County Medical Society—meets only on call.
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

ANNUAL REPORT
Rx

it all boils down to THIS!

$9,483,786 paid by Missouri's two Blue Shield Plans to physicians for their services in treating 263,588 member patients . . . $25,983,099 paid by the St. Louis and Kansas City Blue Cross Plans to hospitals for care of 230,042 members . . . 1,320,843 Missourians protected by Blue Cross membership . . . 884,747 by Blue Shield.

These are some of the figures achieved during 1956 by Blue Cross and Blue Shield in Missouri. They all boil down to this fact: the Plans are moving steadily forward in providing dependable protection for those who give and for those who receive health care.

The profession's sponsorship and each doctor's support have been instrumental in the development and performance of Blue Cross and Blue Shield. These will play increasingly important roles as the Plans strive to meet the growing responsibilities of truly dependable prepayment.

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News

The Sedalia Chapter No. 57, Order of the Eastern Star, on February 12, honored **A. J. Campbell**, M.D., Sedalia, on his twenty-fifth anniversary as Past Grand Patron of the Grand Chapter, Order of the Eastern Star of Missouri.

Speaker to members of the Delta Gamma Alumnae Columbia Regional Chapter on March 4 was **Hugh E. Stephenson**, M.D., Columbia.

The Cancer Society of Monroe County elected **George M. Ragsdale**, M.D., Paris, as health chairman, at an election held in February.

At the meeting of the Excelsior Spring Lions Club in February, **E. B. Robichaux**, M.D., served as program chairman, and had as speaker **Victor B. Buhler**, M.D., Kansas City.

The Jasper County Medical Secretaries and Assistants Society were addressed at a meeting in February by **Jules B. Van Urk**, M.D., Carthage, who spoke on "Diabetes Mellitus."

Members of the Business and Professional Women's Club of Columbia recently toured the University Medical Center and were addressed by **Walter R. Hepner**, M.D., Columbia.

The Fifth District Missouri Nurses Association had as speaker at a meeting in Joplin in March **Albert E. Upsher**, M.D., Kansas City. He spoke on "Blood Transfusions."

Heart disease was discussed by **Rosellen Cohnberg**, M.D., Monett, before the Monett Business and Professional Women's Club at their March meeting.

A recently elected Director-at-large on the Board of the State Chamber of Commerce is **Durward G. Hall**, M.D., Springfield.

The recently organized Southwest Missouri Chapter of the American Academy of General Practice elected **M. L. Gentry**, M.D., Springfield, president; **C. R. Macdonnell**, M.D., Marshfield, vice president, and **Kenneth Knabb**, M.D., Springfield, secretary-treasurer.

The county court of Livingston County has appointed **V. D. Vandiver**, M.D., Chillicothe, to serve as county physician. He succeeds C. M. Grace, M.D., Chillicothe.

The American Academy of Orthopedic Surgeons has named **H. Relton McCarroll**, M.D., St. Louis, as president-elect. He will take office at the annual meeting next year in New York.

The Beta Iota Chapter of Sigma Alpha Epsilon, Springfield, had as speaker at a February meeting, **Guy D. Callaway, Jr.**, M.D., Springfield, who spoke on "Common Heart Disorders."

"Medical Aspects of Mental Health" was discussed at a PTA meeting in West Plains by **C. F. Callihan**, M.D., West Plains, at a meeting in February.

The Boonville Rotary Club had as speaker at their February meeting, **B. M. Stuart**, M.D., Boonville.

Among speakers at the recent congress on Medical Education and Licensure held in Chicago was **William A. Sodeman**, M.D., Columbia.

The Missouri State Board of Medical Examiners has changed the date of the next examination from June 13 and 14 to May 31 and June 1 and the place has been changed from Jefferson City to St. Louis.

SURGICAL SEMINAR TO BE PRESENTED

The Department of Surgery of Washington University, St. Louis, will present a Surgical Seminar on May 29 at the David P. Wohl, Jr., Memorial Hospital Auditorium, 4960 Audubon Avenue, St. Louis. The seminar will be open to two hundred and applications should be to the Department of Urology of the hospital. The program follows:

9:00 a.m. Peripheral Vascular Disease: (a) The Role of Angiography in Diagnosis; (b) The Indications for Surgical Correction; (c) The Results of Attempted Surgical Correction in the Barnes Hospital During the Last Three Years, Carl A. Moyer, M.D.,
10:00 a.m. Eighth Nerve Tumors, Henry Schwartz, M.D.
10:30 a.m. Tolserol in the Treatment of Trigeminal Neuralgia, Robert King, M.D.
11:00 a.m. Surgical Management of Carcinoma of the Bladder, Justin J. Cordonnier, M.D.
11:30 a.m. Intravenous Urography, Charles H. Nicolai, M.D.
12:00 noon. Complimentary lunch at Barnes Hospital.
2:00 p.m. (1) Surgery of the Open Heart. (2) Diagnosis and Management of Surgical Diseases of Infants and Children, Thomas Burford, M.D.
3:00 p.m. Treatment of Fractures of the Hip, Fred Reynolds, M.D.
3:30 p.m. Surgery of the Acromio-Clavicular Joint, Arthur H. Stein, M.D.
4:00 p.m. Hypospadias, Louis T. Byars, M.D.
4:20 p.m. Early Grafting of Burns, Frank McDowell, M.D.
4:40 p.m. Plastic Surgery in Farm, Industrial and Traffic Accidents, J. Barrett Brown, M.D.

Six hours of category I credit will be given by the American Academy of General Practice for this seminar.

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1. Moyer, J.H.: J. Louisiana M. Soc. *108*:231 (July) 1956.

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2. Wright, W.T., Jr., et al.: J. Kansas M. Soc. *57*:410 (July) 1956.

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After full effect one tablet suffices.

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met March 14 at the Strand Hotel, Chillicothe. There were about fifty present including members, Auxiliary members, pharmaceutical representatives and visitors. After the dinner, the Auxiliary retired to another room for their program.

The scientific program was presented by Dr. William Kitchen, radiologist, Kansas City, who discussed "The Elusive Polyp." This was an interesting and scientific presentation illustrated with slides. The speaker stressed the early diagnosis of malignancy of the colon and presented some late diagnostic methods.

Dr. James H. Sweiger, who has recently returned from military service, was elected as alternate delegate for DeKalb County.

The minutes of the last meeting were read and approved.

There being no further business, the Society adjourned.

E. A. Duffy, M.D., *Secretary*

Clay County Medical Society

The Clay County Medical Society met in regular session on February 26 at Cascone's Restaurant, North Kansas City. Wives and guests were present for the dinner meeting.

General C. O. Thrasher, director of Civil Defense for the Kansas City area, was the speaker of the evening. He outlined briefly plans for evacuation of Kansas City in case of enemy attack. He discussed present thinking in regard to plans for caring for evacuees and casualties. It was pointed out emphatically that Kansas City would be in the front lines in case of atomic warfare, and that this area would be a prime target for enemy bombers. General Thrasher's talk was informative, matter of fact and practical in nature.

The business session was taken up by a discussion of Society budgetary matters, and a discussion of the necessity for changes in methods and plans for administering medical care to the indigent in Clay County.

S. O. Schroeder, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

W. F. FRANCKA, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

The March meeting of the Chariton-Macon-Monroe-Randolph County Medical Society was held Thursday night, March 14, at the Woodland Hospital in Moberly.

Following dinner, the Society members were privileged to hear a fine discussion on "Injuries of the Hand" by Dr. A. P. Rowlette, Moberly. Dr. Rowlette pointed out that not only do injuries to the hand occur in industry but also are on an increase on the farm and in the home. He presented several patients illustrating certain surgical principles in the care of hand injuries.

During its business session, the Society discussed polio immunization and expressed itself as favoring an all out drive to have individuals through the age of 40 years immunized.

The Society feels that every doctor's office should be an immunization center, and that a concerted effort be made to have everyone go to his or her private physician for this immunization.

The Society also agreed to offer its facilities for any large scale immunization program which might be carried on by the community as a whole.

Sixteen physicians were present at this meeting.

Robert H. Young, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

A called meeting of the Jefferson County Medical Society was held Friday evening, March 15, at the Health Unit Building in Hillsboro.

The meeting was called to order at 8:30 p.m. by Dr. Karl McKinstry, the President.

The scientific program was presented by Dr. Bernard L. Sinner, St. Louis, who gave a paper on "Immediate Care of the Injured." He stressed fundamental principles which all should know but often forget in time of emergency.

Informal discussion followed the meeting.

Mr. Ray McIntyre, Field Secretary of the Missouri State Medical Association, was present and gave up-to-date information on problems confronting the State Association. Others present were Drs. E. J. Senn, Carl Rice, R. H. Donnell, J. L. Mayfield, F. L. Kozal and John F. Rutledge.

John F. Rutledge, M.D., *Secretary*

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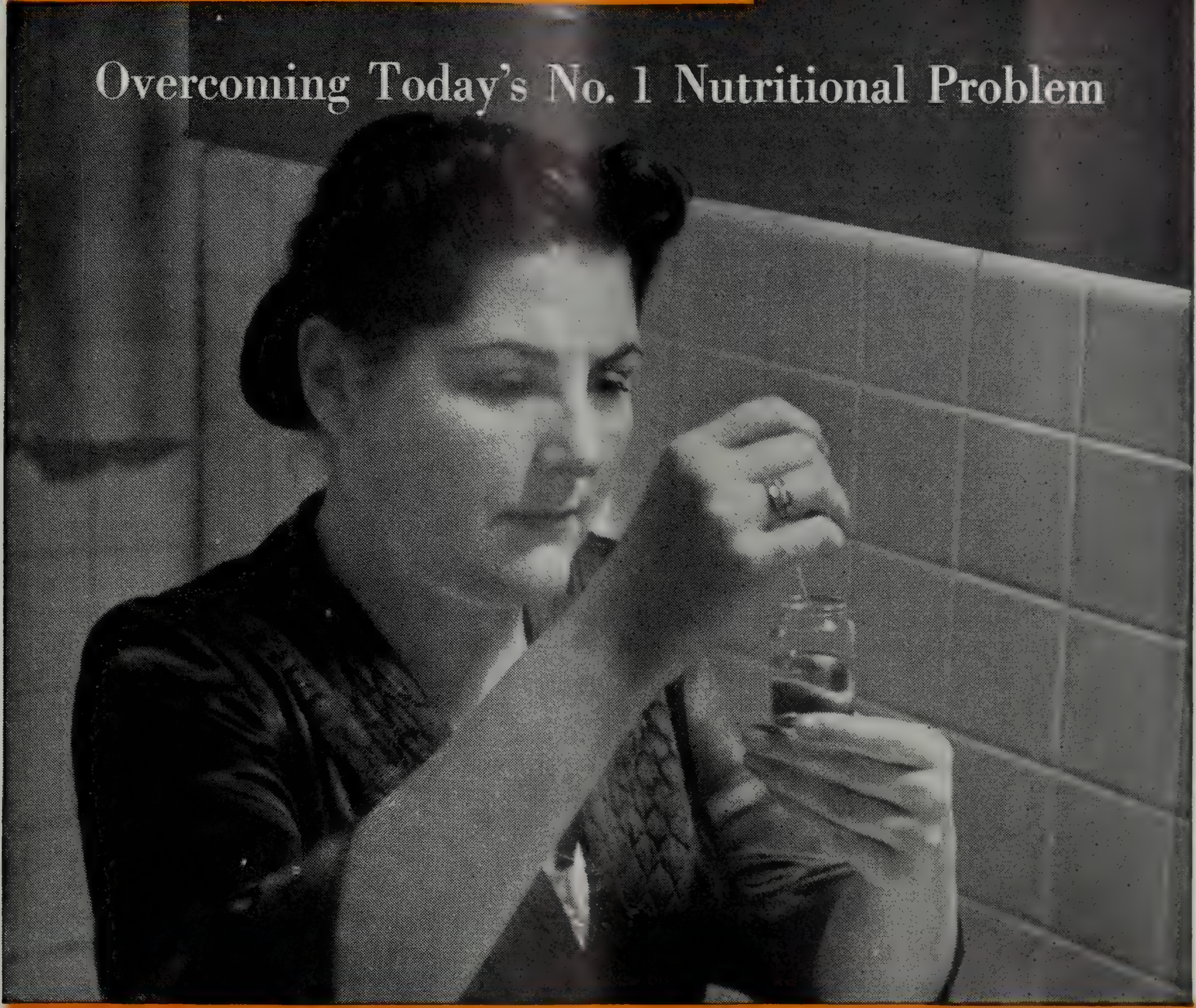

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[1] The Food Exchange Lists referred to are based on material in "Meal Planning with Exchange Lists" prepared by Committees of the American Diabetes Association, Inc., and The American Dietetic Association in cooperation with the Chronic Disease Program, Public Health Service, Department of Health, Education and Welfare.

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

A joint dinner meeting of the Audrain, Callaway and Montgomery County Medical societies was held at Mexico, Monday night, March 18.

A pleasant social hour preceded a fine steak dinner.

The scientific program of the evening was presented by Dr. A. W. Neilson of St. Louis who spoke on "Common Skin Diseases and What to Put on 'Em." His discussion was illustrated with excellent colored slides.

Dr. Neilson was the speaker.

Sixteen physicians were in attendance to enjoy and benefit from Dr. Neilson's practical presentation.

Mr. Ray McIntyre, Field Secretary of the State Medical Association, was also present.

Lawrence Epple, M.D., *Secretary*

Fifth Councilor District Meeting

An afternoon and evening meeting of the Fifth Councilor District of the Missouri State Medical Association was held in Columbia, Thursday, February 28.

The afternoon scientific session was held at the University of Missouri Medical Center with the program given by the faculty of the MU Medical School.

The evening dinner session was held at the Daniel Boone Hotel.

From 3:00 to 4:00 p.m., in the Medical Center Auditorium, a panel discussion was presented on "Some Present Day Concepts in the Pathogenesis and Management of Diabetes Mellitis." Those on the panel were: Drs. W. A. Sodeman, Professor of Medicine, moderator; Robert L. Jackson, Professor of Pediatrics; Claude Bruner, Associate Professor of Surgery; Gilbert Ryder, Clinical Associate of Dermatology; Thomas Burns, Assistant Professor of Medicine, and Grafton A. Smith, Assistant Professor of Surgery, participants.

Dr. Vohs was one of the speakers at the dinner meeting.

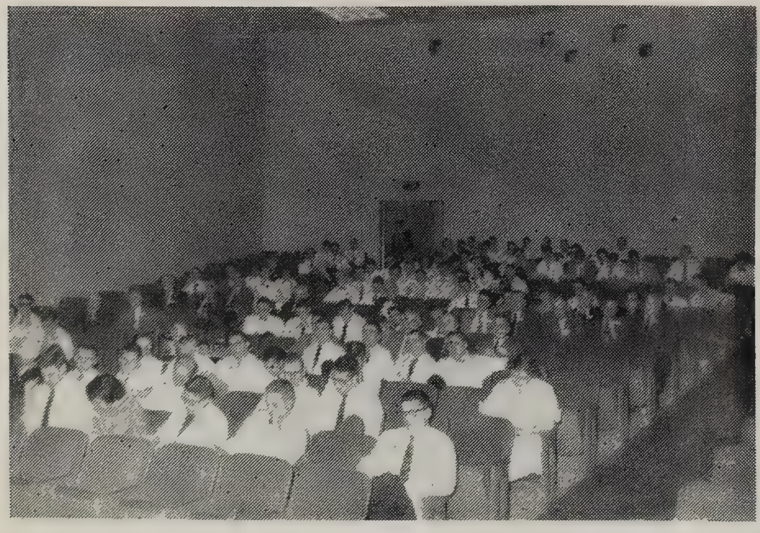
From 4:00 to 5:00 p.m., an interesting clinical pathologic conference was conducted by Dr. M. Pinson Neal, pathologist, and Dr. Ray Hepner, pediatrician, the clinician. This was a most interesting case, and its presentation was given added value through the excellent discussion led by Dr. Neal.

The afternoon attendance including physicians in private practice, the staff and house officers of the Medical School, medical students and others, approximated 225 people.

The entire afternoon presentation was of high caliber, interesting, practical and well received.

The evening session began with a social hour at 6:00 p.m. Dinner was then served folllowed by a panel discussion including talks by Dr. Carl Vohs, St. Louis, President of the Missouri State Medical Association; Dr. A. P. Rowlette, Moberly, Chairman, Medical Economics Committee of the State Medical Association; Dr. Hollis Allen, St. Louis, Chairman, Committee on Hospital and Professional Relations, Missouri State Medical Association, and Mr. T. R. O'Brien, Executive Secretary, Missouri State Medical Association.

These talks related to Medicare, Blue Shield, certain



The afternoon session was in the Medical Center Auditorium.

The dinner was well attended.

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Discussion continued after the meeting.

social security provisions, some mutual and conflicting interests of physicians and hospitals and vendor payments relating to the medical care of welfare patients.

Fifty doctors attended the evening dinner meeting and were privileged to hear this informative up-to-date discussion of important socio-economic problems confronting the profession today.

Byron Stuart, M.D., *Councilor*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

The March meeting of the West Central Missouri Medical Society and the doctors' wives was held at Judy's Cafe, Nevada, March 14.

A social hour preceded the dinner and the program. Dr. James R. McVay, Jr., Kansas City, presented an interesting discussion on "Hits and Misses in the Management of Gallbladder Disease."

Those doctors and wives who attended the festivities on this occasion left this meeting with a feeling of an evening well spent.

Robert L. Magee, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

The February meeting of the Mid-Missouri Medical Society was held in the Pine Room of the Greyhound Bus Station in Rolla, Thursday night, February 28.

This was a dinner meeting and the doctors' wives were also in attendance.

The scientific program for the evening was a panel discussion on "Selection of Cases for Cardiac Surgery" by a group of doctors from St. Louis University Medical School. Those composing the panel were: Mary Davis, M.D., St. Louis; J. F. G. Mudd, M.D., St. Louis, and Vallee W. Willman, M.D., St. Louis.

Those who are also members of the Missouri Academy of General Practice are entitled to receive two hours of Category I Postgraduate Credit from this program.

M. K. Underwood, M.D., *Secretary*

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner, Wednesday night, February 27, at Tiny's Cafe in Cabool, with the following members present:

C. F. Callihan, M.D., Rollin H. Smith, M.D., and M. L. Fowler, M.D., West Plains; R. W. Denney, M.D., and A. C. Ames, M.D., Mountain Grove; T. J. Burns, M.D., and John Tarr, M.D., Houston; Garrett Hogg, Jr., M.D., and J. L. Spears, M.D., Cabool; M. B. Perkins, M.D., H. W. Miller, M.D., and L. E. Walker, M.D., Willow Springs; A. T. Walker, M.D., Mammoth Springs, Arkansas; D. E Tiffany, M.D., Mountain View; C. W. Cooper, M.D., Thayer, and John W. Polk, M.D., and Dr. McAlhany of Springfield and the wives of several of them.

After dinner the ladies went home with Mrs. Spears for the evening, and Dr. A. T. Walker, the president, called the meeting to order and introduced Dr. Polk who made an interesting talk and showed films on injuries of the chest and especially those that occur in automobile accidents.

The minutes of the last meeting were then read and approved and arrangements were made for the next meeting to be at West Plains on April 24.

The meeting was adjourned.

A. C. Ames, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Mineral Area County Medical Society

On Thursday night, February 28, the Mineral Area County Medical Society held its regular monthly meeting at the Clinic Building of the State Hospital, Farmington.

The scientific program for the evening was furnished by the Missouri Academy of General Practice and presented Paul D. Fleming, M.D., St. Louis, who spoke on "Frequent Colds or Allergic Rhinitis in Children."

An interesting discussion period followed Dr. Fleming's formal presentation.

R. A. Huckstep, M.D., *Secretary*

GERIATRIC MEDICINE AND PSYCHOSOCIAL PROBLEMS OF LATER LIFE

A postgraduate course on Geriatric Medicine, with special emphasis on heart disease, will be conducted by Washington University School of Medicine, Division of Gerontology, under the sponsorship of the Division of Health, and cosponsored by the Missouri Heart Association, the St. Louis Heart Association and the Gerontological Research Foundation, at the St. Louis Chronic Hospital, on May 22, 23 and 24. Tuition is free. Further information may be obtained from the Division of Gerontology, Washington University School of Medicine, 5600 Arsenal St., St. Louis 9, Mo. The program follows:

Wednesday, May 22, St. Louis Chronic Hospital

8:30 to 10:00 a.m. Registration.

10:00 a.m. Orientation to Geriatric Medicine, William B. Kounts, M.D., Washington University School of Medicine.

11:15 a.m. Nutritional Aspects of Coronary Disease and Arteriosclerosis, Ancel Keys, Ph.D., Director, Laboratory of Physiological Hygiene, University of Minnesota.

2:00 p.m. Problems in the Management of Complications of Peripheral Atherosclerosis in the Aged, Ray W. Gifford, Jr., M.D., Department of Medicine, The Mayo Clinic.

3.00 p.m. Recognition of Types and Treatment of Heart Disease in the Older Person, John Smith, M.D., Kenneth C. Price, M.D., Robert Paine, M.D., Washington University School of Medicine.

Thursday, May 23, Washington University School of Medicine

8:30 a.m. Genito-urinary Surgery, Justin J. Cordonnier, M.D., and associates, Washington University School of Medicine.

9:30 a.m. Grand Rounds.

10:30 a.m. Infections in the Older Person, Marion A. Blankenhorn, M.D., Director of Education in the Department of Internal Medicine, Jewish Hospital, Cincinnati, Ohio.

11:45 a.m. "Tonics and Sedatives" for the Older Person, Joseph Costello, M.D., St. Louis University School of Medicine.

12:30 p.m. Some Drug Usages and the Response in the Older Person, William B. Kountz, M.D., Teofil Kheim, M.D., Washington University School of Medicine.

2.00 p.m. Psychiatric and Neurologic Aspects of Geriatrics, E. F. Gildea, M.D., Washington University School of Medicine. Recognition of Common Geriatric Syndromes and Their Treatment, James M.A. Weiss, M.D., Washington University School of Medicine.

3:00 p.m. Senile and Arteriosclerotic Psychoses, David Davis, D.P.M., Washington University School of Medicine.

4:00 p.m. Psychological Counseling in Geriatric Medicine, Ivan N. Mensh, Ph.D., Washington University School of Medicine.

7:30 p.m. The Role of the Associated Professions in Health of the Older Person, Dean A. Clark, M.D., Medical Director, Massachusetts General Hospital, Boston.

8:30 p.m. Social Policies for Old Age, Barbara E. Shenfield, Author and Lecturer, London, England.

Friday, May 24, St. Louis Chronic Hospital

9:00 a.m. Arthritis in the Elderly: Medical Aspect, Paul Hagemann, M.D., Washington University School of Medicine.

9:45 a.m. Orthopedic Aspect of Chronic Bone Disease Directed at Its Control, H. R. McCarroll, M.D., Washington University School of Medicine.

10:45 a.m. Responsibility of the Physician in Recommending "Home Care" and"Institutional Care," Joseph Costello, M.D., George Tanaka, M.D., John Roberts, M.D., St. Louis Chronic Hospital.

2:00 p.m. The Need for Rehabilitation, Robert E. Shank, M.D., Washington University School of Medicine.

3:00 p.m. Physical Rehabilitation of the Elderly Person, Sedgwich Mead, Medical Director, California Rehabilitation Center, Vallejo, California.

6:00 p.m. Reception.

7:00 p.m. Dinner. Annual Meeting of the Gerontological Research Foundation.

From the Medical Schools

UNIVERSITY OF MISSOURI

Postgraduate Medicine

In conjunction with the Fifth Councilor District of the Missouri State Medical Association, the seventh in the series of Postgraduate Medical Education sessions was held on February 28, 1957, in the Auditorium of the University of Missouri Medical Center. A symposium on diabetes mellitus was presented, using as the subject: "Some Present Day Concepts in the Pathogenesis and Management." Panel discussants and their subjects are as follows:

Dr. Robert L. Jackson, professor and chairman, department of pediatrics, "Results of a Long-Term Study on the Management of Diabetic Children."

Dr. Thomas W. Burns, assistant professor, department of medicine, "The Practical Use of the Laboratory Aids in Diagnosis and Management of Diabetes Mellitus."

Dr. Claude R. Bruner, associate professor, department of surgery, "Ocular Complications of Diabetes Mellitus."

Dr. Hugh E. Stephenson, Jr., associate professor and chairman, department of surgery, "Complications of Diabetes Mellitus Amenable to Surgery."

Dr. Gilbert Ryder, clinical associate, (dermatology), "Skin Manifestations of Diabetes Mellitus."

Following the presentation by the Panel, a discussion and question and answer period was held, with Dr. W. A. Sodeman, professor and chairman, department of medicine, acting as moderator. The meeting was attended by approximately 200 students and physicians, many from outside Columbia.

Medical Advisory Committee

The Advisory Committee to the President of the University of Missouri and to the Dean of the School of Medicine held its first meeting on Sunday, March 10, 1957, in the Conference Room of the new Teaching Hospital and elected Dr. John W. McHaney of Jefferson City as chairman of the group for the current academic year.

University President Elmer Ellis spoke to the committee briefly, pointing to the vital importance of the group as the welding link between the medical profession of Missouri and the University administration and the faculty of the School of Medicine in promoting the best possible education of new physicians and surgeons.

Dr. Roscoe L. Pullen, Dean of the University of Missouri School of Medicine, summarized the progress so far in reestablishment of the four year School and in the use of facilities of the new Teaching Hospital and the Medical Sciences Center.

Dr. Frank Mays, Washington, Missouri, President of the Medical Alumni Association of the University and also a member of the Advisory Committee, outlined briefly the purpose and plans of the Missouri Medical Foundation and told of the progress so far in establishment of new financial aids for education and research in medicine in the School here.

The committee announced plans to meet here at the School four times a year and in the meantime all members present expressed the hope that they would be able to visit the school individually at other times during the year and lend any assistance or advice desired.

Members present in addition to Dr. McHaney and Dr. Mays included: Dr. Duff Allen, St. Louis; Dr. Carl Vohs, St. Louis, President of the Missouri State Medical Association; Dr. W. S. Sewell, Springfield, President-Elect of the Missouri State Medical Association; Dr. T. L. Dwyer, Mexico, President of the Missouri Academy of General Practice; Dr. Charles Martin, Ferguson, President-Elect of the Missouri Academy of General Practice; Dr. Donald M. Dowell, Chillicothe; Dr. Dennis R. Elrod, Cape Girardeau; Dr. A. W. McAlester III, Kansas City; Dr. Walter J. Siebert, St. Louis, and Dr. Walter W. Tillman, Jr., Springfield.

Additional members of the Medical Advisory Committee who were unable to attend the meeting are Dr. Fred B. Kyger, Kansas City; Dr. Charles Leech, Columbia; Dr. Glover H. Copher, St. Louis and Dr. H. M. Hardwicke, Jefferson City, ex-officio member.

Also present at the luncheon and meeting were Dr. Frank B. Engley, Jr., Assistant Dean of the School of Medicine, and Mr. John Perry, assistant to the director of the Medical Center.

An Institute on Cardiac Nursing, sponsored by the Missouri Heart Association, United States Public Health Service, Missouri State Division of Health and the Missouri State Nurses Association, was held at the University of Missouri Medical Center on March 4, 1957. The chairman for the institute was Mrs. Katherine Mason, R.N., associate professor and assistant director of the School of Nursing, University of Missouri, who welcomed the group at the opening session. Faculty members of the University of Missouri School of Nursing and School of Medicine who participated in the Institute were Dr. T. W. Burns, associate professor, department of medicine, who spoke on "Medical Aspects of Various Types of Cardiovascular Diseases," Dr. W. A. Sodeman, professor and chairman, department of medicine, Mrs. Verna Rhodes, R.N., instructor in the School of Nursing, and Miss Dorothy Vorhies, associate professor of dietetics and nutrition and director of the dietary department, who served as panel discussants at the morning session.

A meeting of the Fifth Councilor District of the Missouri State Medical Association was held at the University of Missouri Medical Center, Columbia, Missouri, on Thursday, February 28, 1957. The afternoon session was held in the Auditorium of the University of Missouri Medical Center as part of the Postgraduate Medicine sessions sponsored by the School of Medicine. The attending physicians were shown through the facilities of the new Medical Center following the afternoon session.

The evening session was held at the Daniel Boone Hotel in Columbia, where a panel discussion was held on: "Where Do We Go From Here?" with Carl F. Vohs, M.D., President of the Missouri State Medical Association, acting as moderator. Panelists included: Avery P. Rowlette, M.D., chairman, committee on medical economics; Hollis N. Allen, M.D., chairman, committee on hospital and professional relations, and Mr. T. R. O'Brien, Executive Secretary, of the Missouri State Medical Association.

Visitors to the University of Missouri Medical Center

Guests of Dr. Roscoe L. Pullen on March 10, 1957, were members of a planning subcommittee from the University of Puerto Rico School of Medicine, San Juan, Puerto Rico. Members of the subcommittee included: Dr. Nelson Biaggi, associate professor of sanitary science and chairman of the subcommittee; Dr. Rurico S. Diaz Rivera, professor and head of the department of medicine; Dr. Enrique Koppisch, professor and head of the department of pathology; Dr. Jose Noya Benitez, professor and head of the department of surgery; and Dr. Carroll A. Pfeiffer, professor and head of the department of anatomy.

The Future Nurses Club of Mexico High School, Mexico, Missouri, visited the University of Missouri Medical Center on Saturday, February 23, 1957. Following a talk on the School of Nursing by Mrs. Una Rice Thomas, instructor in the School of Nursing, the students were conducted on a tour of classrooms and the Medical Center.

Awards and Appointments

Miss Lucille Stuart Spalding, B.S., Washington University, St. Louis; M.S., Western Reserve; associate professor, University of Missouri School of Nursing and Adult Education and Extension Division, was chosen by the Washington University Board of Directors and the Alumni Citation Committee as one of twelve distinguished alumni to receive the Alumni Citation in recognition of outstanding achievements and services which reflect honor upon the University.

This citation, awarded on February 20, 1957, during the Founders Day Program at Washington University, St. Louis, Missouri, read as follows: "Because of her significant work with the Graduate Nurse Program at Missouri University, because of her unselfish service to mankind through the application of her nursing knowledge, and because of her World War II service as Chief Nurse of General Hospital 21 (Washington University) in North Africa, Italy and France, this Citation is awarded to Lucille Stuart Spalding.'"

Until recently, Miss Spalding was professor of nursing in charge of graduate curricula of the University of North Carolina School of Nursing. Prior to this she was assistant professor of nursing at Washington University and Western Reserve University Schools of Nursing.

Dr. E. T. Standley, assistant professor, department of pathology, has recently been appointed to the board of directors of the Missouri Association of Blood Banks as representative from the Central District of Missouri. The Missouri Association of Blood Banks was organized in April 1956, and the purpose of the association is to render service to the citizens throughout the State of Missouri by promoting the dissemination of information relating to blood banking by planning for times of disaster, by promoting the extension of blood banking services, and by encouraging participation in the American Association of Blood Banks.

Michael H. Ivey, Ph.D., assistant professor in the department of microbiology, has been awarded a fellowship in parasitology and tropical diseases. Under the fellowship program, Dr. Ivey will be afforded an opportunity to visit several Central American countries during April and May of 1957. Dr. Ivey will spend approximately five weeks in Costa Rica studying tropical diseases, diagnostic procedures and local public health programs. He will then visit El Salvador and Guatemala three weeks for further studies.

The fellowship was awarded by the China Medical Board of New York, and Dr. Ivey will be on leave of absence from the University of Missouri for the two months period.

Trips and Talks

Mr. Ray McIntyre, Field Secretary of the Missouri State Medical Association, St. Louis, was guest speaker at a meeting of the Missouri Chapter of the Student American Medical Association at the University of Missouri Medical Center on Tuesday, March 5, 1957. Mr. McIntyre discussed: "Opportunities for Rural Practice in the State of Missouri."

Dr. Roscoe L. Pullen, Dean of the University of Missouri School of Medicine, and Dr. Walter R. Hepner, Sr., were guest speakers at a meeting of the Columbia Chapter of the Business and Professional Women's Club on February 26, 1957. Dr. Hepner spoke on "A Laymen Looks at Mental Health." The group toured the new Medical Center following the meeting in the Auditorium.

Dr. Frank B. Engley, Jr., Assistant Dean of the University of Missouri School of Medicine, and professor and chairman, department of microbiology, was in New Orleans, Louisiana, from February 16 to February 20, 1957, where he visited Tulane University, Louisiana State University and Charity Hospital. Dr. Engley

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visited the laboratories in the department of microbiology at the universities, as well as other infectious disease teaching and research units. At Charity Hospital he visited the Virus Diagnostic Laboratory.

On February 28, 1957, Dr. Engley visited the campus of Central College in Fayette, Missouri, where he spoke to the premedical students on "Opportunities for Medical Education at the University of Missouri."

Dr. Engley attended a meeting in St. Louis, Missouri, on March 8, 1957, of the planning committee for Medical Education Week. Representatives of Washington University, St. Louis University, as well as representatives of the ladies auxiliary of medical groups in St. Louis City and St. Louis County and of the universities, attended the meeting which was presided over by Dr. James Murphy, State Chairman of Medical Education Week. Plans were formulated and suggestions received for a successful completion of this year's program.

Dr. T. W. Burns, assistant professor, department of medicine, spoke to the Ninth District Nurses Association in Hannibal, Missouri, on February 25, 1957. Dr. Burns discussed " Medical Aspects of Caring for the Cardiac Patient." The meeting was attended by approximately 100 members of the association.

Dr. H. S. Goldberg, assistant professor, department of microbiology, spoke to the Dental Assistants in Columbia, Missouri, on February 15, 1957, using as his subject: "Biological Warfare."

Dr. B. A. Westfall, professor and chairman, department of physiology and pharmacology, spoke to members of the Honorary Science Fraternity of Central College at Fayette, Missouri, on March 14, 1957. Dr. Westfall spoke on "Opportunities in Physiology and Pharmacology."

Dr. Hugh E. Stephenson, Jr., associate professor and chairman, department of surgery, spoke to the Regional Alumnae Association of Delta Gamma Society on March 4, 1957, using as his subject: "Human Tissue Banks."

On March 12, 1957, Dr. Stephenson spoke to the staff nurses of the State Crippled Children's Service on "Congenital Heart Disease."

Dr. Samuel P. W. Black, associate professor, department of surgery, spoke to members of the Missouri Licensed Practical Nurses Association on March 12, 1957, using as his subject: "Nursing Care of the Neurological Patient."

Dr. Black attended a meeting of the St. Louis Neurosurgical Society in St. Louis on February 28, 1957.

WASHINGTON UNIVERSITY

Memorial Services

Memorial services for Dr. Evarts A. Graham, internationally noted surgeon who died March 4, were held March 31 in Graham Memorial Chapel on the Washington University campus. Dr. Graham had been associated with Washington University School of Medicine as Bixby professor of surgery and head of the department since 1919. He also was chief surgeon at Barnes and St. Louis Children's Hospitals. He retired in 1951 but remained active in research until shortly before his death. Four distinguished physicians, all colleagues and close friends of Dr. Graham, participated in the service. Sir Russell C. Brock of London spoke on Dr. Graham's international eminence as a surgeon. Sir Russell is thoracic surgeon to Guy's Hospital and surgeon to the Brompton Hospital, London. Speakers from this country included Dr. Frank Berry, assistant Secretary of Defense in charge of the armed Medical services; Dr. Alfred Blalock, professor of surgery and director of that department at Johns Hopkins University, and Dr. Joseph C. Hinsey, director of the New York Hospital-Cornell Medical Center. Dr. Graham's role in national affairs was discussed by Dr. Berry. Dr. Blalock spoke on Dr. Graham's influence on American surgery, and Dr. Hinsey spoke on his contributions to medical education. Chancellor Ethan A. H. Shepley of Washington University discussed Dr. Graham's influence on the University. Bishop William Scarlett, head of the Episcopal diocese of Missouri until his retirement in 1952, delivered the benediction. Long regarded as the dean of American surgeons, Dr. Graham was known the world over for his pioneer work in chest surgery and his development of an x-ray test for gallbladder disease. In recent years he was widely acclaimed for studies on the relationship between lung cancer and cigarette smoking.

Grants

Washington University School of Medicine recently received a grant of $3,100,000 from the Ford Foundation as part of its $90 million program to strengthen instruction in the forty-five private medical schools in the United States. This amount included $500,000 made to the school last September. Each of the forty-five medical schools received similar amounts at that time. Dean Oliver Lowry said that the $2,600,000, actual amount of the grant announced recently, will be used to improve salaries of the medical staff, rather than to increase the size of the staff. The grant to Washington University was the seventh largest of the forty-five made. In determining amounts of the grants the Medical School Grants Advisory Committee working with the Ford Foundation took into account size of student bodies, relative investments of the schools in research and in various teaching departments, special contributions toward advancement of the medical profession, quantity and quality of research activities, and other factors normally present in the evaluation of educational institutions.

A grant of $28,153 has been awarded to Dr. E. V. Cowdry by the American Cancer Society as part of its program to support cancer research, Dean Oliver H. Lowry announced recently. Dr. Cowdry is director of the Wernse Laboratory of Cancer Research at Washington University School of Medicine. Under the grant Dr. Cowdry, Dr. Valentina Suntzeff, research associate in cancer, and their associates will continue work on human lung cancer, especially the early changes that occur in the bronchi. They wish to discover whether there are significant differences in the epithelial linings of the bronchi in heavy cigarette smokers when compared with nonsmokers. The chemical studies of the project are being directed by Dr. Brian Spencer, visiting research associate in cancer, who is on leave of absence from the University of Wales at Cardiff, England, for this purpose. The research group also includes a Japanese pathologist, Dr. Genshiro Ide, fellow in cancer research.

Meetings

Four staff members presented papers at a meeting of the Washington University Medical Society held

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March 27. The papers and their authors were: "Circulatory Changes During Hypothermia," by Dr. John R. S. Shields, assistant professor of anesthesiology; Dr. Bernard A. Bercu, assistant professor of medicine; and Dr. Robert B. Dodd, Henry E. Mallinckrodt professor of anesthesiology and chief of the division of anesthesiology in the department of surgery; "Mammalian Arylsulphatases," by Dr. Brian Spencer, visiting research associate in cancer; "True Hermaphroditism," by Dr. Willard M. Allen, professor of obstetrics and gynecology and head of the department; and "The Active Transport of D-Galactose-1-C^{14} as Studied With Slices of Rabbit Kidney Cortex, in Vitro," by Dr. Stephen M. Krane, former U. S. Public Health Service postdoctoral fellow in biological chemistry; and Dr. Robert K. Crane, associate professor of biological chemistry.

Dr. Stephen W. Kuffler, of the Wilmer Institute at Johns Hopkins University School of Medicine, gave the second annual George H. Bishop Lecture in Experimental Neurology on April 12. His subject was "Synaptic Inhibition and Dendrites." Dr. Bishop, in whose honor the lecture was established, is professor emeritus and lecturer in neurophysiology at the medical school.

The twenty-second annual Leo Loeb Lecture was given April 17 at the medical school by Dr. Harry S. N. Greene, Anthony N. Brady professor of pathology and chairman of the department at Yale University School of Medicine. He discussed "Farmers' Daughters and Cancer Research." The lecture, which is sponsored by Mu chapter of Phi Beta Pi Medical Fraternity, honors Dr. Loeb, who is professor emeritus of pathology at the medical school.

Sir Russell C. Brock, thoracic surgeon to Guy's Hospital and surgeon to the Brompton Hospital, London, acted as visiting professor of thoracic surgery April 1 to 5 at Washington University School of Medicine. In addition to giving lectures at the school, he performed operations and conducted clinics. Sir Russell was one of the speakers at the memorial services for the late Dr. Evarts A. Graham.

"The Role of the Physician in Society" was the subject for a recent seminar sponsored by the Campus Y and Tau Pi Epsilon Pi, premedical society at Washington University. Speakers were: Dr. P. J. White, assistant professor of clinical pediatrics; Dr. William H. Olmstead, associate professor emeritus of clinical medicine; Dr. Justin J. Cordonnier, professor of urology; and Dr. Carl G. Harford, associate professor of medicine.

Dr. Clinton W. Lane, associate professor of clinical medicine (dermatology), recently gave a paper at a meeting of the Chicago Medical Society. His subject was "Cutaneous Manifestations of Visceral Diseases."

SAINT LOUIS UNIVERSITY

Gifts and Grants

The Ford Foundation has awarded the School of Medicine a gift of $1,600,000 as part of its $90,000,000 program to strengthen instruction in the nation's forty-five private medical schools. The grant is to be held as invested endowment for at least ten years, during which time the income may be spent for instructional purposes. The recent gift includes the $500,000 first installment grant made to the medical schools last September. Dr. James W. Colbert, Jr., Dean, announced that the gift would be used to increase the medical faculty strength and accelerate the program of increased educational experience for the student body.

Other recent gifts to the School of Medicine included a bequest of $25,000 from the estate of Mrs. Katherine B. Schlueter, widow of Dr. Robert E. Schlueter, who died in 1955. Dr. Schlueter had been on the medical faculty for thirty-four years and was associate professor of surgery at the time of his death.

Dr. Walter J. Burdette, professor of clinical surgery and director of the St. Louis University Surgical Service at Veterans Hospital, has been awarded two grants totaling $24,895 by the American Cancer Society. He is conducting research studies on the isolation of a new hormone which may be useful in the treatment of cancer. In his research Dr. Burdette has found that tumors in insects regress spontaneously because of the presence of a hormone in their bodies. The hormone is secreted by the insect's ring gland, and causes the change from one stage of its life cycle to the next. Dr. Burdette is isolating the hormone and testing it to see if it will also cause regression of tumors in higher animals including man. He is also conducting research in the cause of pulmonary cancer.

Fellowship

Dr. Leonard Laskowski, Jr., assistant professor of microbiology, has been awarded a two month's fellowship in Tropical Diseases and Parasitology from the China Medical Board. Dr. Laskowski left for the tropics March 25 to conduct tropical disease studies and to collect pathologic specimens from the tropics to be used for teaching purposes at the School of Medicine. He is headquartered at the San Juan de Dios Hospital in Costa Rica, where a laboratory has been set up for his studies. From Costa Rica, Dr. Laskowski will travel to the Pacific slopes of Guatemala where he will study onchocerciasis. His studies will also include mycotic infections, malaria and chagas disease. He will conclude his tour by visiting a hospital which specializes in tropical diseases at the United Fruit Company Plantation located in El Salvador. Dr. Laskowski spent four years in the tropics during World War II studying certain aspects of tsutsugamushi disease, malaria, leprosy, elphantiasis and other tropical diseases.

Lectures

Dr. Harry M. Hines, professor of physiology and director of the department at State University of Iowa College of Medicine, Iowa City, Iowa, delivered the third annual Albert Kuntz Lecture sponsored by the Phi Chi Medical Fraternity March 28 at the St. Louis Medical Society. He spoke on "Peripheral Blood Flow." Dr. Kuntz, an international authority on the autonomic nervous system died January 19. Dr. James W. Colbert, Jr., Dean, and Dr. Edmund A. Smolik, associate professor of clinical surgery, paid tribute to Dr. Kuntz at a dinner at the Melbourne Hotel prior to the lecture.

Dr. Grayson L. Carroll, associate clinical professor of urology, spoke before the New York Academy of Sciences meeting in New York March 22. He de-

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livered a paper on the "Current Use of Sulfonamides in Urology."

Dr. Karl G. Lark, instructor in microbiology, delivered a lecture titled "Some Aspects of Cell Division" before the medical faculty seminar held March 21. Dr. Robert Mack, Chief of the Medical Service at the St. Louis Veterans Administration Hospital, delivered a paper titled "Scintogram in the Diagnosis of Diseases of the Thyroid."

Summer Graduate Course

A five week summer course open to students in the biological and medical sciences will be offered for the first time by the Biology Department of the University. The course, which will begin June 18, will be under the direction of Dr. Sophie Jakowska, associate professor of biology, College of Mount St. Vincent, New York. The course will combine the biologic and the medical experimental approach to hematology and will appeal to the advanced experimental biology student and medical hematologist. Dr. Jakowska's research studies range from cancer to blood studies of fishes. She formerly served as an assistant in the Chemotherapy Division, Sloan Kettering Institute for Cancer Research. Application for the course may be made through the graduate school.

TUBERCULOSIS ABSTRACT

Antimicrobial Therapy in the Treatment of Primary Tuberculosis Pleurisy With Effusion: Its Effect Upon the Incidence of Subsequent Tuberculosis Relapse

In 1951 it was recommended, on the basis of the Veterans Administration-Armed Fources Study of the therapy of tuberculosis, that all cases of primary tuberculous pleurisy with effusion (idiopathic pleurisy with effusion) be treated with antimicrobial therapy, as well as by sanatorium care. Recognizing that pleurisy with effusion represents tuberculosis with a high rate of subsequent relapse, it was believed that every effort should be made to reduce it. The present paper is a a report of the results of the cooperative study to January 1, 1956.

In addition to the treated series, it was also possible to obtain information on a series of cases in which antimicrobial therapy had not been used. The series for comparison comprise 382 patients who received various periods of chemotherapy and 209 patients who received no chemotherapy. All patients in both series were hospitalized. However, the treated and untreated series were not concurrent in time, nor was there randomization in selection for chemotherapy against untreated controls.

The criteria established for selection of cases were:

The effusion should be of recent origin, perferably not extending over sixty days. The tuberculin skin reaction should be definitely positive before or during treatment. Tubercle bacilli should, when possible, be demonstrated in the aspirated fluid by culture or guinea pig inoculation, either at the beginning of therapy or subsequent to it.

Prior to treatment, every effort should be made to exclude a nontuberculous etiology of the effusion.

Patients having a demonstrable parenchymal lesion at the onset of the effusion were excluded from the study.

The background factors in both series were remarkably similar. Approximately half of the patients in each series were less than 30 years of age, 95 per cent in each series were males, and approximately two thirds of each group were white. The two sides of the chest were equally affected in each group. None of the patients in either group had roentgenographic evidence of intrapulmonary lesions at the beginning of hospital treatment.

Antimicrobial therapy was not uniform as to the agents used or the duration of therapy. There were sixteen patients who received chemotherapy for less than four months, chiefly streptomycin alone. However, more than half the patients received chemotherapy for six months or more with various combinations of antimicrobial agents.

The total rate of tuberculous complications, excluding recurrent effusion, was 19 per cent in the untreated group and four per cent in the group which received chemotherapy. Pulmonary tuberculosis was the most frequent complication in each group and skeletal tuberculosis was the most frequent extrapulmonary complication.

Two deaths were attributable to a tuberculosis relapse, both occurring in the group which did not receive chemotherapy. One death occurred in a patient who developed miliary and meningeal tuberculosis twenty-seven months after the onset of the effusion, and the other followed the diagnosis of far advanced pulmonary tuberculosis in a patient twenty-six months after onset of the effusion.

Recurrent pleural effusion was reported in five of the treated group and in eleven of the untreated series. Of the sixteen recurrences there were seven on the same side as the initial effusion, eight on the contralateral side, and one bilateral recurrent.

The incidence of complications related to various background factors suggests an apparently lower incidence of extrapulmonary complications in the untreated group, a higher rate of complications among the non-whites who received chemotherapy, and a lower incidence of recurrent effusions in the treated group. None of these comparisons is statistically significant.

EFFECT OF CHEMOTHERAPEUTIC REGIMENS UPON THE INCIDENCE OF TUBERCULOSIS COMPLICATIONS IN THE TREATMENT OF PLEURAL EFFUSION

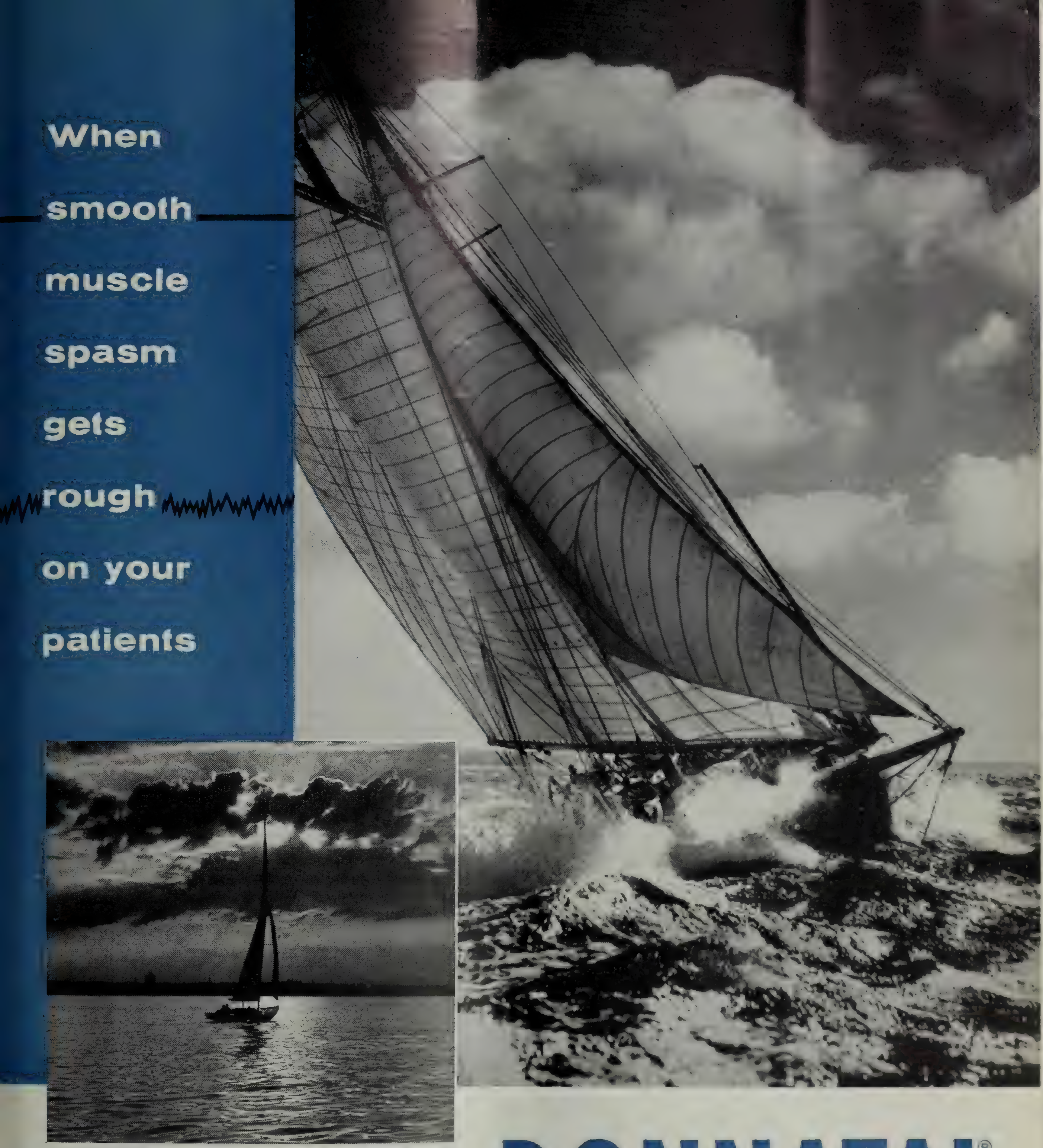
Regimen	*Number Treated*	*Number of Complications*	*Per cent*
Streptomycin only	12	3	25.0
Streptomycin-PAS	250	11	4.4
Isoniazid-streptomycin or isoniazid-PAS	120	3	2.5

The incidence of complications related to the antimicrobial agents used was highest among those treated with streptomycin alone. Most of these patients received chemotherapy for less than four months. The lowest incidence is among those who were treated with drug combinations employing isoniazid, and there were

---

Issued by the National Tuberculosis Association.

By Abraham Falk, M.D., and William W. Stead, M.D., The American Review of Tuberculosis and Pulmonary Diseases, December, 1956.



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also no reported extrapulmonary complications in this group.

The average length of hospitalization for treatment of the effusion among those who developed tuberculous complications was five months for those receiving no chemotherapy and six months for those who did. Seventy-five per cent of this group developed tuberculous complications while still in the hospital and on chemotherapy. More than half the complications occurred within the first six months of hospital treatment. The majority of relapse in both series occurred in those cases in which the pleural fluid bacteriologic findings had been negative. This is highly significant and further substantiates the necessity for a firm diagnosis on clinical grounds.

The estimated rate (life table method) for all tuberculous complications at the end of four years of observation was 9 per cent in the treated group compared with 25 per cent in the untreated group. A similar analysis for the complication of pulmonary tuberculosis alone indicated a rate of 7 per cent and 21 per cent, respectively. The estimated complication rate for the treated cases did not increase after 30 months but did continue to increase for the untreated cases.

The rate of initial bilateral effusion in both the treated and untreated series was the same. However, the rate of complication was 57 per cent among the patients with bilateral effusion in the untreated series and confirms the clinical impression of the higher morbidity associated with this finding. The rate of complication in the treated group of bilateral effusion was 6 per cent.

Certain statistical defects exist in these data, primarily in the nonrandomization of cases, the lack of concurrence in time of the two series, the varying regimens of chemotherapy and duration of therapy, and the possibility of incomplete reporting of cases. The relapse rate of series of patients treated prior to the introduction of the antimicrobial drugs is usually estimated at 35 per cent and has varied from 20 to 65 per cent in reports for the five years following onset of the pleural effusion. These data and subsequent reports from the continuing study should offer information of value in estimating the results of chemotherapy in reducing the incidence of tuberculosis relapse.

DEATHS

Triplett, Jacob S., M.D., Harrisonville, a graduate of the University of Michigan Medical School, 1891; honor member of the West Central Missouri Medical Society; aged 92; died February 7.

Pitzman, Marsh, M.D., St. Louis, a graduate of Washington University School of Medicine, 1906; member of the St. Louis Medical Society; aged 75; died February 7.

Max, Clarence O. C., M.D., St. Louis, a graduate of Washington University School of Medicine, 1899; honor member of the St. Louis Medical Society; aged 83; died February 14.

Marshall, Homer C., M.D., Springfield, a graduate of Washington University School of Medicine, 1944; member of the Greene County Medical Society; aged 38; died February 23.

Graham, Evarts A., M.D., St. Louis, a graduate of Rush Medical College, 1907; honor member of the St. Louis Medical Society; aged 74; died March 4.

Bugg, Andrew F., M.D., Ellington, a graduate of Barnes Medical College, 1903; member of the Mineral Area County Medical Society; aged 80; died March 5.

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1. Zimmerman, F. T., and Burgemeister, B.: *Arch. Neurol. & Psychiat.* 72:720, 1954.
2. Zimmerman, F. T., and Burgemeister, B.: *J.A.M.A.* 157:1194, 1955.
3. Zimmerman, F. T.: *Arch. Neurol. & Psychiat.* 76:65, 1956.

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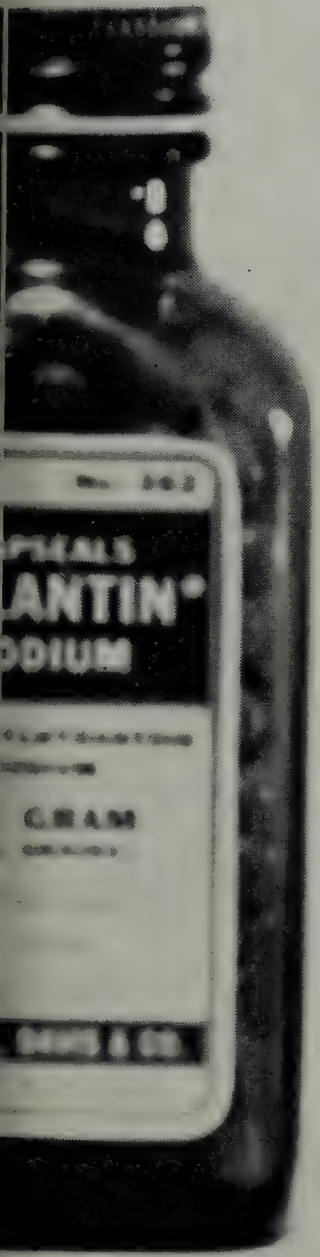

Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Curiosa et Trivia

William B. McCunniff, M.D.

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To cure fits, an Alexandrian prescription (about 100 A.D.) included these earthy ingredients: brains of camel, rennet of sea calf, excrement of crocodile, heart of hare, blood of turtle and testicles of wild boar.

It's getting harder to find the traditional "physician and surgeon" since the A.M.A. Council on Education now recognizes and approves residencies in thirty specialties and subspecialties. The most recent addition is aviation medicine.

Of the several items considered in the cost of living index, medical care has shown the greatest rise. It is now listed at 132 per cent of the 1947-49 average compared with 116 per cent for the entire consumer index.

Eight per cent of American families incur no medical expense during a year, and more than 10 per cent have medical expenses in excess of five hundred dollars.

Daily administration of 150,000 units vitamin A to a group of accident prone drivers apparently was responsible for a "striking" improvement in their tested driving efficiency.

Capsule Clinics

I. A. Wien, M.D.

- It is generally agreed that Krukenberg tumors are secondary growths and represent metastases from primary lesions in the gastrointestinal tract, particularly from carcinoma of the stomach. They are extremely rare. Cancer Bull. 7 (Jan.-Feb.) 1955.
- Carcinomas of the lip are the most common forms of cancer of the oral cavity, and they can be seen readily and should therefore be diagnosed early and treated successfully. Actually there are only 65 or 75 per cent five year survivals. Cancer Bull. 7 (Jan.-Feb.) 1955.

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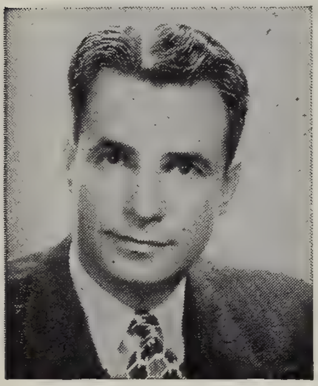
Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO



Base hospital Unit No. 21 from the Barnes Hospital at St. Louis has departed for the war. Dr. W. P. Bradley, Superintendent of State Hospital No. 3, Nevada, has been reelected by the new Board of Managers. Dr. Joseph W. Charles of St. Louis has been reappointed a member of the board of managers of the Missouri School for the Blind. The term is for six years. Just as we are going to press we learn of the sudden death of Dr. L. A. Todd of St. Joseph. He had been to Kansas City for treatment of an ear trouble and died on an interurban car while returning to his home. Dr. W. J. Ferguson of Sedalia, Councilor of the 19th District, has been appointed a member of the State Board of Health succeeding Dr. R. L. Wills, of Neosho, whose term expired. The term is for four years. Dr. D. C. Thompson of Ferguson, arrested and prosecuted by the government for violation of the Harrison Anti-Narcotic law, was found guilty in the United States District Court at St. Louis on May 10. His attorney gave notice that the case would be appealed.

Dr. George H. Jones of Jefferson City, bacteriologist of the State Board of Health, has been appointed a member of the board and elected secretary. He will continue to act as state bacteriologist, the two positions being combined for economic reasons. The St. Joseph health authorities are experiencing the difficulty that other health officers have met when attempting to improve sanitary conditions of cities. It is said that many of the people in St. Joseph are ignoring the ordinance requiring outhouses to be connected with the city sewer. An amusing incident occurred at Springfield session when a member of the committee sent by the G.A.R. to convey its greetings to our association, earnestly advocated the coalition of our body with the Osteopaths; but he warned against any combination with the Christian Scientists. Dr. C. W. Watts, Secretary of Howard County Medical Society, and his estimable wife celebrated the golden anniversary of their marriage on May 16. They have been residents of Fayette for many years and Dr. Watts has been Secretary of the Howard County Society ever since the reorganization of the Association. The St. Louis Medical Society has appointed a committee to push the prosecution of Jacob Stengal, the man who shot and killed Dr. Frederick L. Pohlmann, a member of the Society, on May 14. The Society voted to exhaust every proper means for prosecuting Stengal for murder, and if that charge failed to prosecute him for carrying concealed weapons.

TWENTY-FIVE YEARS AGO

The New Orleans Session of the American Medical Association which convened May 9 to 13 was one of outstanding merit. The number of physicians attending was below the hoped for registration but there was no lack of enthusiasm or earnestness. The officers are Dr. E. Starr Judd, Rochester, Minnesota, President, with Dr. Edward H. Cary, Dallas, to become President. Dr. Dean Lewis, Baltimore, professor of surgery in Johns Hopkins Hospital, was chosen President elect.

There are approximately 2,000 lepers in the United States. A study of deaf mutes in Germany showed that about 10 per cent were born deaf and 21 per cent were the result of scarlet fever. Dr. Walter S. Hull, Faucett, was reappointed county health officer of Buchanan County by the county court on April 18. Governor Caulfield has appointed Dr. Charles E. Hyndman, St. Louis, a member of the Missouri State Board of Nurse Examiners to fill the unexpired term of Dr. Louis J. Wolfort, St. Louis, who died recently. Dr. Duff S. Allen, St. Louis, was reelected secretary of the American Association for Thoracic Surgery at the annual session of the society held in Ann Arbor, Michigan, April 18 to 20. Dr. Evarts A. Graham, St. Louis, was appointed editor of the *Journal of Thoracic Surgery,* the official organ of the society. Dr. W. H. Allen, Rich Hill, was guest of honor at the home of a son in Hume on May 1 where a number of friends had gathered to celebrate his eighty-second birthday. Dr. Allen has practiced medicine in Rich Hill for fifty-seven years and is an Honor Member of the Bates County Medical Society and the State Medical Association.

The discovery of a bacteriophage capable of destroying the staphylococci found in the circulating blood in certain types of septicemia was reported by Drs. W. J. Macneal and Dr. Frances C. Frisbee, of the New York Post Graduate Medical School and Hospital. Two hundred seventy-two physicians attended the first annual spring symposium of the Kansas City Southwest Clinical Society which was held at Bell Memorial and Kansas City General hospitals in Greater Kansas City on April 19 and 20. Seven states were represented in the registration and more than a hundred of the registrants were from outside of Kansas City. The annual spring clinic of the St. Joseph Clinical Society was

(Continued on page 529)

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Fifth Component Chapter for MAGP

A number of members of the MAGP from southwest Missouri met at Springfield on Thursday night, March 7, and organized a Southwest Missouri Chapter of the MAGP. Application for a charter to the Missouri Academy will be made in due time. Officers elected for the proposed new chapter are: M. L. Gentry, M.D., Springfield, president; C. R. Macdonnell, M.D., Marshfield, vice president; Kenneth Knabb, M.D., Springfield, secretary-treasurer.

Members of the Greater Kansas City Chapter of MAGP assembled on May 23 at the Pickwick Hotel in Kansas City for their annual meeting. They were fortunate to have as their guest speaker Dr. J. S. DeTar, the immediate past president of the American Academy of General Practice of the year was also honored, with Dr. C. E. Martin, Missouri State President, making the presentation speech.

MAGP welcomes new active members Grady L. Breese, Jr., M.D., Marble Hill; Earl D. Russell, M.D., Springfield; Charles T. Edmondson, M.D., Malden; Dorwyn W. Croom, M.D., Malden, and Claude C. Farley, M.D., Kansas City; and new associate members William H. Paris, M.D., and Raymond A. Stansbrough, M.D., St. Louis.

Ninth Scientific Assembly Postscript

The weatherman figured prominently in upsetting advance predictions that the St. Louis Assembly would produce the largest physician registration in Academic history. But, nonetheless, 3,009 physicians were on hand for the scientific sessions in St. Louis' Kiel Auditorium.

Officers and directors for the new year have the ring of Dixie with the following heading the Academy's officialdom in 1957-1958: Dr. Holland T. Jackson, Ft. Worth, Texas, is the new president-elect; Dr. Fred Simonton, Chickamauga, Ga., is vice president; Dr. James D. Murphy, Ft. Worth, was reelected speaker of the Congress of Delegates and two of the three new board members are Dr. Marquis C. Wiginton, Hammond, La., and Dr. Mary Elizabeth Johnston, Tazewell, Va.

The third new member of the board of directors is Dr. Norman Booher of Indianapolis, Ind. Dr. Horace Eschbach, Drexel Hill, Pa., who continues as vice speaker of the congress, and Speaker Murphy were reelected by acclamation. Retiring directors are Drs. Fred Simonton, Joseph Lindner, Cincinnati, Ohio, and Arthur Haines, Pittsburgh, Pa.

Vice president Simonton succeeds Dr. William M. Sproul, Des Moines, Ia., who was a candidate for the post of president-elect.

The breakdown of this year's registration total of 6,111 is as follows: physicians 3,009; technical exhibitors 1,005; scientific exhibitors 161 and ladies and guests 1,936.

Highlights of Sessions

President DeTar's Address: One of the major events of the ninth session of the Congress of Delegates was the exhaustive report given to the congress by President J. S. DeTar. Dealing as it did with many of the important phases of medical education for the general practitioner and conditions affecting his practice, it was necessary to refer various sections of it to the several reference committees. Contained in the report were eleven specific recommendations, each of which was considered by the committees.

Membership Requirements Tightened: A one year rotating internship was made an absolute essential in the requirements for eligibility for membership in the Academy and there was talk of further increasing requirements in subsequent years.

Postgraduate Study Requirements: While several proposals to change the postgraduate study requirements were considered, the congress expressed its desire by an overwhelming vote to maintain the same high standards now set by the present classificatory system for courses.

General Practice Defined: An official definition of general practice was adopted by the congress for the guidance of constituent Academy groups. The definition was recommended by President DeTar in his report. Three AMA committees now studying general practice will be urged to adopt the definition which follows: "General practice is that area of medical care performed by a doctor of medicine in those fields of diagnosis and therapy commensurate with his professional competence, assuming a total continuing responsibility for the health of the individual or the family as a unit."

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While discussing purulent cellulitis and sepsis due to staphylococci, Eastman, et al., mentioned erythromycin as a *drug of first choice in treating these conditions.*[2]

Meanwhile, Solomon and Johnston stated, *"in the staphylococcic and streptococcic infections, other than pneumonias, without exception the results of treatment with erythromycin were excellent."*[3]

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1. Herrell, W. E., Erythromycin, Antibiotics Monographs, No. 1, p. 34, New York, Medical Encyclopedia Inc., 1955. **2.** Eastman, G., Cook, E. and Bunn, P., N. Y. State J. Med., 56:241, 1956. **3.** Solomon, S. and Johnston, B., Amer. J. Med. Sc., 230:660, 1955.

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* Film-sealed tablets, Abbott; pat. applied for.

Woman's Auxiliary

Mrs. Armand D. *(Ruth Anne)* Fries, *President*

Many times we have relived in memory the delightful time enjoyed at the 32nd annual meeting of the Woman's Auxiliary to the Missouri State Medical Association. Perhaps I was just a bit prejudiced, at this meeting in Kansas City, since it brought such a fine honor, but each time I return from a gathering of medical colleagues, I am more proud of our husbands' worthy profession. Conventions afford a splendid opportunity to renew old friendships, and to make new friends and every Doctor's wife should avail herself of this opportunity by attending. Whether it is the work we are interested in or the play we so much enjoy, the time devoted to these gatherings is always well spent and most rewarding. We always look forward to the buffet supper on Sunday evening, which this year followed a social hour made possible by the generosity of the Jackson County Medical Society. The luncheon at the Terrace Grill, and the delightful "Tornado Bridge" which followed, on Monday, will always be a happy memory. The Past Presidents' Breakfast, the luncheon and style show of lovely wedding gowns from out of the past, in the beautifully decorated Carriage Club, on Tuesday, were highlights of the convention's social functions. My Doctor and I were given a place of honor at the Speaker's table at the Banquet on Tuesday night and we were much impressed by so many dedicated men being honored for their fifty years of practice, as it brought back to us the thrill of pride we experienced, when our own beloved Dad Fries, received his award for his fifty year term of service and we know that, like him, they will carry on for many more years of service to humanity.

Reports of work accomplished by Auxiliary members throughout Missouri and their plans for future service could not help but interest and inspire one with determination and willingness to do one's share of the work, to bring credit to one's own auxiliary and honor to our state. It is with a feeling of pride and humility that we are allowed to continue to build on the strong foundation that has been laid for us, and may I introduce now, our newly elected Board of officers, directors, committee chairmen and medical advisory council, who will carry the banner of our Auxiliary for 1957-1958.

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Twenty Years of Anticoagulants

Their Present Status[*]

WILLIAM T. FOLEY, M.D., *New York*

THE LEADING CAUSE of death and invalidism in persons over age 50 is thrombo-embolism. The advent of heparin and coumarin derivatives for the first time offered a means of directly attacking this problem. During the last eighteen years, every conceivable type of thrombo-embolism has been treated with anticoagulants, or attempts at prophylaxis have been made. In some conditions they were disastrous, as in subacute bacterial endocarditis. In others, they have been life saving. This paper summarizes the various conditions in which they are used and evaluates each phase as to proved value, questionable value, or experimental use.

The first disease to be attacked with heparin was subacute bacterial endocarditis in 1937. At that time, effective antimicrobial agents were not available. Heparin was given to these patients in an effort to prevent the deposit of fibrin on the bacterial vegetations. Many of them succumbed to cerebral hemorrhage, probably from the weakening of the blood vessel walls due to the toxemia of the disease. The method immediately fell into disrepute. Subacute bacterial endocarditis has been considered a contraindication to anticoagulant therapy ever since. Recently this problem has been reapproached. Patients with rheumatic heart disease who have had showers of emboli and who are being maintained on continuous dicumarol therapy as a prophylactic, some of them for as long as eight years, occasionally develop subacute bacterial endocarditis as a natural consequence of their disease. Such patients have been continued on their dicumarol therapy and at the same time given penicillin. Clinical cure of the subacute bacterial endocarditis has resulted with no untoward effects from the dicumarol which continued to afford protection against embolization.

PHLEBITIS AND PULMONARY EMBOLISM

Phlebitis and pulmonary embolism were the first conditions to be successfully treated. Simultaneous reports from the Mayo Clinic group[1a] and Swedish workers [1b] have since been confirmed in every clinic working on this subject. The mortality from subsequent pulmonary emboli can be reduced from 18 per cent to less than 1 per cent. One may consider then that the value of anticoagulants in phlebitis and in pulmonary embolism is definitely proved. Treatment of recurrent or migratory phlebitis presents a slightly different problem. I refer to the patient who has repeated attacks of phlebitis in his legs over a period of months or years, or the patient who has phlebitis which travels from limb to limb and often visceral vessels as well. Before the development of anticoagulants they presented an almost hopeless prognosis. We have attempted to treat a group of these patients with continuous dicumarol administration (table 1).

TABLE 1

THROMBOEMBOLIC EPISODES IN PATIENTS WITH RECURRENT THROMBOPHLEBITIS

	Not on anticoagulant		*On anticoagulant*	
Number of patients	*Patient months*	*Number of episodes*	*Patient months*	*Number of episodes*
24	2,207	92[x]	1,184	7[o]

[x] Includes 63 thrombophlebitis
20 pulmonary emboli

[o] Thrombophlebitis
(in 7 patients)

Chief of the Vascular Clinic, New York Hospital, Cornell University Medical College.

Presented at the 99th Annual Session, Missouri State Medical Association, Kansas City, March 31, April 1-3, 1957.

[*] Aided by grants from Mr. Jean Lambert, Mrs. Samuel Milbank, Mrs. Frank Corbett, Mr. Isaac Harter, Mr. Thornton Oxnard, and the Eaton Laboratories, Norwich, N. Y.

Twenty-four patients who had had recurrent thrombophlebitis during a period of 2,207 patient months experienced a total of ninety-two thromboembolic episodes. Each patient has had more than one year of continuous therapy. Sixty-three of these were repeated attacks of thrombophlebitis. There were twenty with pulmonary emboli. Of the remaining nine, three had peripheral arterial thrombi or emboli, two cerebral thrombi or emboli, and there were four episodes of myocardial infarction. On anticoagulant therapy, over a period lasting 1,184 months, seven of the twenty-four patients each had one episode of thrombophlebitis. There were no other complications. The following case report is representative of this group.

CASE REPORT

Mr. V. J., a 50 year old postal clerk, developed a right saphenous thrombophlebitis seven years ago, three months after a right herniorrhaphy. After six weeks of bed rest he returned to work and wore an elastic stocking until 1948, when he had a recurrence of thrombophlebitis in the same leg. In 1949, he had two episodes involving the same extremity. In 1950, he experienced a fourth attack of thrombophlebitis accompanied by chest pain and hemoptysis and was hospitalized. He was placed on anticoagulants and made a satisfactory recovery. Dicumarol was discontinued and he was discharged. Twenty-three days later, he was readmitted with a further attack of thrombophlebitis and it was decided to keep him on long term therapy. Three months later, following an episode of rectal bleeding, thought to be related to hemorrhoids, anticoagulants were discontinued. Three days later he developed chest pain associated with hemoptysis and dicumarol treatment was recommended. Therapy has been continued to date, a total of forty-four months. There have been no further episodes of thrombophlebitis or pulmonary embolism, and prothrombin time is well controlled on 50 mg. of dicumarol per day.

RHEUMATIC HEART DISEASE WITH EMBOLIZATION

Patients with rheumatic heart disease, mitral stenosis and auricular fibrillation frequently extrude emboli to the lungs and to the peripheral circulation. If a patient has had one embolus the chances are great that he will have more. Anticoagulants have been administered to these patients continuously for periods of years in an effort to prevent further embolization. We reported our first cases in 1947.[2] Since then confirmation has come from many other clinics including Cosgriff,[3] Askey[4] and Cherry and Bay[5] in this country, and Owren[6] of Norway, Burt[7] of Edinburgh and Beaumont[8] of France.

Only those patients who could be relied upon to follow directions carefully were accepted for long term therapy. Adequate laboratory facilities and a physician well acquainted with the problems involved were always available. In most instances patients were already hospitalized at the time anticoagulant treatment was commenced. Where there was a need for immediate anticoagulant effect, heparin was used with tromexan and dicumarol or both. As soon as the prothrombin complex time reached (Link-Shapiro modification[9] of Quick's method[10]) 25 to 35 seconds, heparin was stopped. Oral anticoagulants were continued, dosage being estimated after the daily prothrombin complex time had been reported. By the time the patient was ready for discharge from the hospital it was usually necessary to determine the prothrombin complex time only once a week. As a result the patient needed to see his physician at weekly intervals, when he was examined, and careful note made of any untoward reactions. On the basis of the prothrombin complex time determined at this visit, the daily dose for the following week was estimated. In some instances the patient's requirements have remained so constant that the prothrombin complex time could be determined at fortnightly intervals. One patient in this series has been tested monthly for six years. However, for ease of administration and safety, we advocate that the weekly interval be maintained. A prothrombin complex time between 20 and 35 seconds (with a normal range of 13 to 16 seconds) was regarded as a safe therapeutic level for patients on long term therapy. An average of 25 seconds appears ideal for most patients.

Dosage varies from patient to patient but remains fairly constant for any given patient. However, certain disturbances in physiologic balance may alter the response to the anticoagulant drug. Upper respiratory infections, diarrhea from any cause, the use of gut sterilizing antibiotics, low food intake and alcoholic excess may at times reduce dicumarol requirements, as shown by prolongation of the prothrombin time and occasionally by minor hemorrhagic manifestations.

TABLE 2

THROMBOEMBOLIC EPISODES IN PATIENTS WITH RHEUMATIC HEART DISEASE

	Not on anticoagulant			*On anticoagulant*	
	Number of patients	*Patient months*	*Number of episodes*	*Patient months*	*Number of episodes*
Two or more episodes before therapy	25	765	113	1,416	18[x]
One episode before therapy	4	3	4	506	0

[x] In 7 patients

Twenty-nine patients had rheumatic heart disease (table 2). All had mitral valvular disease and twenty-six were in persistent auricular fibrillation. Twenty-five patients had had more than one thrombo-embolic complication before commencement of anticoagulant therapy. During a period of 765 patient months, dating from the first thrombo-embolic episode to the beginning of long term therapy, these twenty-five patients experienced 113 clinically recognizable episodes. Of these, thirty-two were pulmonary, forty-four peripheral, twenty-one cerebral, twelve visceral, three myocardial and there was one episode of thrombophlebitis. While on anticoagulant therapy, a period of 1,416 patient months, seven of the twenty-five patients experienced eighteen thrombo-embolic episodes. Six of these were pulmonary, three peripheral, five cerebral and four visceral in location. The remaining eighteen patients had no thrombo-embolic episodes.

Four of the twenty-nine patients had single thrombo-embolic episodes and were maintained on long term anticoagulant therapy. During the period of 506 patient months on treatment, no episodes of thrombo-embolism were experienced. The following is a typical case history.

CASE REPORT

Mrs. A. J., is a 43 year old housewife, who has rheumatic heart disease with mitral stenosis and insufficiency, aortic insufficiency and auricular fibrillation. At the age of 6 years she had chorea. A heart murmur was discovered when she was 13; and at 21, in her first pregnancy, she developed cardiac failure. During the next twenty years she had recurrent episodes of failure and at 41 developed a left hemiparesis and a diagnosis of cerebral embolism was made. The neurologic condition improved rapidly and she was given dicumarol for three weeks. Seven months after this incident, evidence of gross renal infarction occurred and because of these two serious episodes and her persistent signs of failure, she was placed on long term anticoagulant therapy.

She has now had 50 mg. of dicumarol daily for eighteen months, is seen at one or two week intervals and is well controlled with no further incidents.

MYOCARDIAL INFARCTION

Thrombo-embolic phenomena after myocardial infarction are a major complication of this condition. The cooperative clinic study of the American Heart Association[11] showed conclusively that mortality and morbidity could be greatly reduced by the proper use of these drugs. Recently, it has been suggested that anticoagulants be reserved for the "severe" cases of this disease. Myocardial infarction is notorious for masking its clinical signs and symptoms. Indeed the diagnosis is often hidden until a major thrombo-embolic complication focuses attention on it. The physician at the bedside must determine when he first sees the patient whether or not the case will be severe or mild and so decide whether to give or to withhold anticoagulants. We believe that prognostic acumen has not been perfected to this degree and give anticoagulants to all patients where it can be done conveniently and safely.

Attempts have been made to forestall an impending coronary thrombosis. Nichol[12] was one of the first to report on this phase of therapy. Keyes[13] and his coworkers have recently reported that a group of patients given long term therapy had a recurrence rate of 5 per cent compared to 25 per cent in a control group. Suzman[14] of South Africa at the Second World Cardiac Congress in Washington last September reported a mortality of 10 per cent in treated cases compared to 33 per cent in control cases. We have had similar experiences in patients treated from one to eight years.

Two groups of patients with myocardial infarction were studied (table 3). In the first group eleven patients who had had two or more episodes of infarction were observed for 587 patient months without anticoagulant therapy. During this time they had forty-nine thrombo-embolic episodes, thirty of which were myocardial infarctions, ten were pulmonary emboli, two peripheral, two cerebral, four visceral emboli and there was one episode of thrombophlebitis. Under anticoagulant therapy there were but three thrombo-embolic episodes in the subsequent 688 patient months.

In the second group, twelve patients who had experienced single myocardial infarctions were treated by anticoagulants for 842 months during which period there was one questionable thrombo-embolic episode.

TABLE 3

THROMBOEMBOLIC EPISODES IN PATIENTS WITH MYOCARDIAL INFARCTION

	Not on anticoagulant			*On anticoagulant*	
	Number of patients	*Patient months*	*Number of episodes*	*Patient months*	*Number of episodes*
Two or more episodes before therapy	11	587	49[x]	688	3
One episode before therapy	12	41	12	842	1(?)

[x] Includes 30 myocardial infarcts
10 pulmonary emboli

CASE REPORT

R. M., a business executive, had a myocardial infarction eight years ago. He survived this attack and two further infarctions during the next four years. After this third episode it was considered advisable by Dr. E. S. Nichol of Miami to commence long term anticoagulant therapy. The patient continued satisfactorily on dicumarol, 100 mg. per day, and saw his physician every two weeks. He was able to live a normal life and to travel about the country in pursuit of his occupation. Five years ago hematuria occurred although the prothrombin time was within therapeutic range. Investigation revealed a renal calculus which he later passed spontaneously, whilst the prothrombin time was kept at a lower therapeutic level. On a second occasion, hematuria occurred when the prothrombin time was unduly elevated. Investigation revealed that a pharmacist had refilled his prescription giving him 100 mg. tablets of dicumarol instead of 50 mg. tablets. His dosage was thus unwittingly doubled. A blood transfusion and intravenous vitamin K, however, quickly restored the prothrombin time to a safe level. Three months ago while in a distant city, because of a genitourinary complaint, he discontinued dicumarol and the prothrombin time became normal. A few days later he developed severe substernal pain and died a few hours later.

ACUTE ARTERIAL OCCLUSION

Following an embolus or other form of acute occlusion of an artery to a limb, the blood flow in the affected capillary bed is sluggish. While awaiting collateral blood flow to be established there is a great danger of thrombosis in situ in the capillaries and veins of this area. This danger can often be successfully combatted by the prompt use of anticoagulants. Propagation of the embolus, or thrombus can also be stopped.

F. Lund[19] has reported favorably on the long term management. At the Second European Congress of Cardiology in Stockholm last September (1956), he told of his experience in managing eighty-seven cases for a duration of ninety patient years, using dicumarol and marcumar. He followed his treated and control cases with arteriograms. There seems to be a great therapeutic advantage in the treated cases.

CEREBRAL VASCULAR DISEASE

Because of the lack of therapeutic modalities, this has been a neglected field of medicine. But the problem is enormous. It is estimated that there are 1,800,000 victims of strokes alive today. Cerebral arteriosclerosis is second only to schizophrenia as the leading cause for admission to state mental hospitals. This poses a great challenge and any means to combat it is worthy of trial.

In 1947[2] we reported our first experience with anticoagulants in a patient with a cerebral embolus. In 1950[15] a small series of cases was described in *Medical Clinics of North America.* Since then many more patients have been treated[16] and I will summarize them for you. The use of these drugs is based on the following argument: (1) To prevent new emboli from forming in the heart or aorta. (2) To prevent propagation of the original thrombus or lodged embolus which might occlude additional branches of the involved artery, thus increasing the size of the infarcted area. (3) Prevent the development of additional thrombi in other vessels, a common occurrence in the brain. (4) To encourage the more rapid disintegration of the original thrombus by the enzyme systems in the blood, which may have a freer action in the presence of adequate anticoagulant therapy.

There is also another good argument for giving anticoagulant drugs to these patients. Most of them are severely ill and confined to bed. Many have an increased tendency to thrombosis; phlebitis, pulmonary embolism and other thromboembolic episodes are quite common. In the Cornell Division of Bellevue Hospital, in a ten year period, ninety-eight patients with cerebral vascular diseases were autopsied. More than half of them had major thrombi elsewhere, in addition to their cerebral disease.

TABLE 4

MAJOR THROMBOEMBOLIC EPISODES IN 98 PATIENTS WITH CEREBRAL VASCULAR DISEASES AUTOPSIED AT BELLEVUE HOSPITAL, 1942-1952

Total number of patients	*Diagnosis*	*Patients with complications*	*Number of major thromboembolic complications*
46	Cerebral thrombosis or embolism	23	50
52	Cerebral hemorrhage	17	23

It is extremely important to distinguish between cerebral hemorrhage and cerebral thrombosis. One would not wish to give anticoagulants to a patient with a fresh hemorrhage. The differential diagnosis is not difficult in most cases, but there are some patients in whom hemorrhage cannot definitely be ruled out.

Some clinical points that we have found are helpful: (1) Hypertension was present in all our cases of hemorrhage. (2) The onset of hemorrhage is usually accompanied by a severe headache, frequently followed by coma.

The spinal fluid examination is helpful. No one would want to give anticoagulants in the presence of blood in the spinal fluid. The absence of blood does not rule out a small hemorrhage that has not reached the subarachnoid space. The electroencephalogram may be helpful if serial tracings are made. A lesion that improves is most likely vascular. If it worsens it is apt to be a neoplasm. Angiography is helpful in diagnosing and locating aneurysms, arteriovenous fistulas and hemangiomas. It is of little aid in the study of infarction. It is a risky procedure.

Fifty-seven patients have been studied (table 6). They were observed for 795 months after their first thrombo-embolic episode. During this time they had a total of 205 subsequent intravascular clots, including eighty-one in the brain. Then therapy was commenced and continued for a total of 1,162 months. During this time twenty-three clotting complications took place, including six in the brain. Many of these occurred during interruptions in treatment.

CEREBRAL EMBOLISM IN RHEUMATIC HEART DISEASE

Our greatest success has been in the group of patients who have had emboli to the brain from fibrillating rheumatic hearts. Thirty-one patients have been studied[16] (table 7). In the period of

TABLE 5

DIFFERENTIAL DIAGNOSIS OF INTRACEREBRAL HEMORRHAGE, CEREBRAL THROMBOSIS AND CEREBRAL EMBOLUS

	Cerebral Hemorrhage	*Cerebral Thrombosis*	*Cerebral Embolus*
Onset	Severe headache, nausea and vomiting frequently occur at onset followed by coma.	Difficulty in speaking and weakness of an arm or leg are the usual first symptoms. Onset may be gradual or sudden.	Very sudden, abrupt development of neurological signs.
Convulsions	Convulsions occur in 14 per cent of patients at onset.	Convulsions occur in 7 per cent of patients at onset.	Convulsions may occur.
Coma	If coma persists more than 24 hours, it favors diagnosis of hemorrhage.	Coma usually less than 24 hours. Often none at all.	Coma not usual unless embolus is large.
Incidence	15 per cent	82 per cent	3 per cent*
Age groups	Same as for arteriosclerosis (increasing with each decade over 50).	Same as for hemorrhage.	As majority of cases occur from rheumatic hearts, most patients are young adults or early middle aged.
General physical examination	Evidence of arteriosclerosis in retinal or peripheral vessels or other evidence of disease of cardiovascular system. Blood pressure often elevated. Stevenson states that on his autopsied patients the systolic pressure has almost always been above 200 mm. of mercury.	Same as for hemorrhage.	Rheumatic heart disease with mitral stenosis; bacterial endocarditis; auricular fibrillation from any type of heart disease; recent myocardial infarction; evidence of emboli elsewhere such as in the lungs, arms, legs, kidneys, or mesentery may be present. Usually at least one of these pathological states can be found.
Cheyne-Stokes or labored respiration	Common.	Seldom.	Rare.
Conjugate deviation of eyes	Frequent.	Seldom.	Rare.
Quadriplegia	Rare.	Rare except in thrombosis of basilar artery.	Rare.
Stiff neck	Frequent.	Rare.	Rare.
Bilateral extensor plantar response (positive Babinski)	Frequent.	Rare.	Rare.
Leukocytosis	More than 50 per cent of patients have over 12,000 leukocytes per cu. mm.; counts greater than 20,000 are common.	Uncommon.	Uncommon unless embolus is infected.
Cerebrospinal fluid	Usually bloody and under increased pressure. Bloody fluid is diagnostic of hemorrhage into either the ventricular or subarachnoid space. Fluid xanthochromic if hemorrhage is old. May rarely be clear if hemorrhage is deep in brain tissue or walled off.	Fluid usually clear, pressure slightly increased but not above 250 cm. of water. There may be slight pleocytosis and an increase in protein content.	Fluid may be clear or xanthochromic. There may be a moderate pleocytosis and increase in protein content, especially if embolus is septic.

* While this figure is commonly accepted, it may be too low.

TABLE 6

SUMMARY

Number of patients	*Patient months*	*Total thrombo-embolic episodes*	*Cerebral vascular*
BEFORE ANTICOAGULANT THERAPY			
57	795	205	81
DURING ANTICOAGULANT THERAPY			
57	1,162	23	6

TABLE 7

THROMBOEMBOLIC EPISODES IN 31 PATIENTS WITH RHEUMATIC HEART DISEASE

Number of patients	*Total patient months*	*Total Thrombo-embolic episodes*	*Cerebral vascular*
BEFORE ANTICOAGULANT THERAPY			
31	463 months 19 days	137	46
DURING ANTICOAGULANT THERAPY			
31	709 months 22 days	11	4

463 months after their first thrombo-embolic episode, they experienced 137 clotting episodes of which forty-six were cerebral. In the 709 months of treatment, this was reduced to eleven episodes, four of which were cerebral.

CASE REPORT

L. B., a female, 38 years of age, developed rheumatic fever at 4 years of age. From then until she was 12 she had multiple attacks of rheumatic fever with the development of a heart lesion. In 1941, she developed auricular fibrillation, was found to have mitral stenosis with cardiac decompensation. In February 1946, she had a severe saddle embolus. She was then given heparin for two weeks. The embolus apparently divided, descending into both legs and leaving her with occlusion of the major arteries above the knees bilaterally. In 1946, between February and June, she suffered six embolic episodes again involving her legs and also her abdomen and brain. In September 1946 she had another embolus to her right foot, and again one to both legs. On November 2, 1946, she developed a cerebral embolus which produced dizziness, diplopia, slurring of speech, involuntary twitching of the right arm, occipital headaches and loss of convergence of the left eye. She was admitted to the New York Hospital on November 3 and dicumarol was started at that time. She remained in the hospital for one month. She was then ambulatory. Her average weekly requirement of dicumarol was somewhat higher than that of most patients. She needed approximately 900 mg. per week to maintain a level between 28 and 35 seconds. She had no further emboli and led a rather active life for the next three years. She neglected her prothrombin schedule. She would only come in for tests at infrequent intervals and after much urging. Suddenly she had a massive embolus and died. Her prothrombin time on that day was 19 seconds, far too low to give her protection.

CEREBRAL ARTERIOSCLEROTIC DISEASE

At the Second Conference on Cerebral Vascular Disease at Princeton[20] last January, several clinics reported on the use of anticoagulants in cerebral vascular disease, notably Fisher at Harvard, Siegert, Gillikan, and the Mayo Clinic.

Our first work on this subject was published in 1950[15] and suggested that anticoagulants were useful in aborting a threatened cerebral infarction and in preventing further embolization from fibrillating auricles. The Mayo Clinic group have definitely shown that the outlook in basilar artery syndrome can be greatly improved. Fisher reported on more than 100 patients with "intermittent cerebral ischemic attacks" who were benefited.

Nineteen patients (table 8) who suffered from cerebral vascular accidents believed to be on the basis of embolization arising from a mural thrombus secondary to myocardial infarction,[3] or to thrombosis of cerebral arteries, were treated with anticoagulants. Eighteen of these patients suffered thirteen myocardial infarctions preceding other thrombo-embolic episodes; some thrombo-embolic episodes did occur at therapeutic levels. Thirteen of the nineteen patients were hypertensive. In 248 months and thirteen days before anticoagulant therapy, forty-eight thrombo-embolic episodes occurred, twenty-five of which were cerebral. During 287 patient months (a longer period of anticoagulant therapy) the same patients suffered only eight thrombo-embolic episodes, of which two were cerebral, as in the cases of old rheumatic heart disease—a striking reduction.

TABLE 8

THROMBOEMBOLIC EPISODES IN 19 PATIENTS WITH GENERALIZED ARTERIOSCLEROSIS

Number of patients	*Patient months*	*Total thrombo-embolic episodes*	*Cerebral vascular*
	BEFORE ANTICOAGULANT THERAPY		
19	248 months 13 days	48	25
	DURING ANTICOAGULANT THERAPY		
19	287 months 10 days	8	2

As in patients with rheumatic heart disease, there is a striking relationship between the recurrence of thrombo-embolic incidents and the intermittent use of anticoagulants. There were seven patients in this group in whom anticoagulants were used intermittently, and in each instance interruption of therapy was followed by recurrence of thrombo-embolic complications. This case illustrates graphically these relationships.

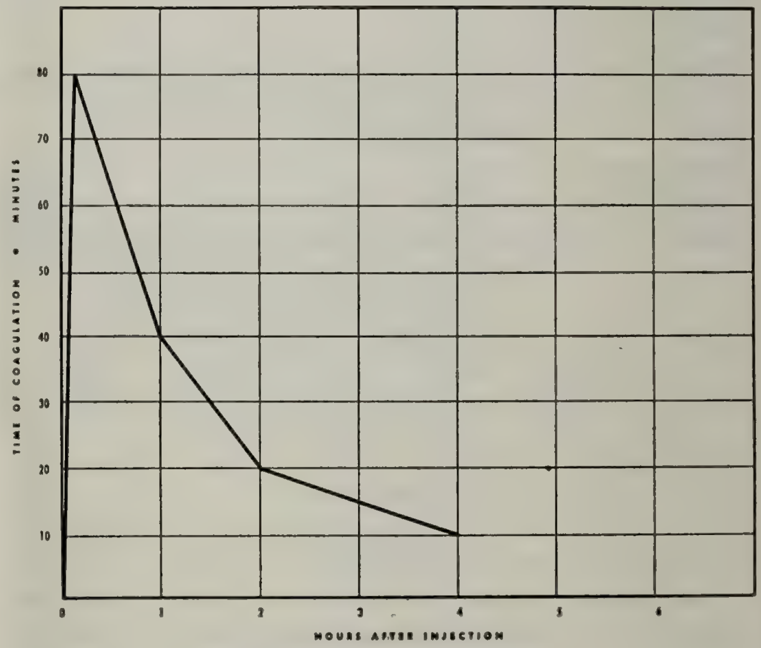

Fig. 1: Intravenous administration of heparin 7,500 units in a 150 lb. man

CASE REPORT

A 53 year old white male, at the age of 50, experienced his first myocardial infarction, which was mixed in type. He was admitted to New York Hospital and anticoagulants were begun July 20, 1950, effective

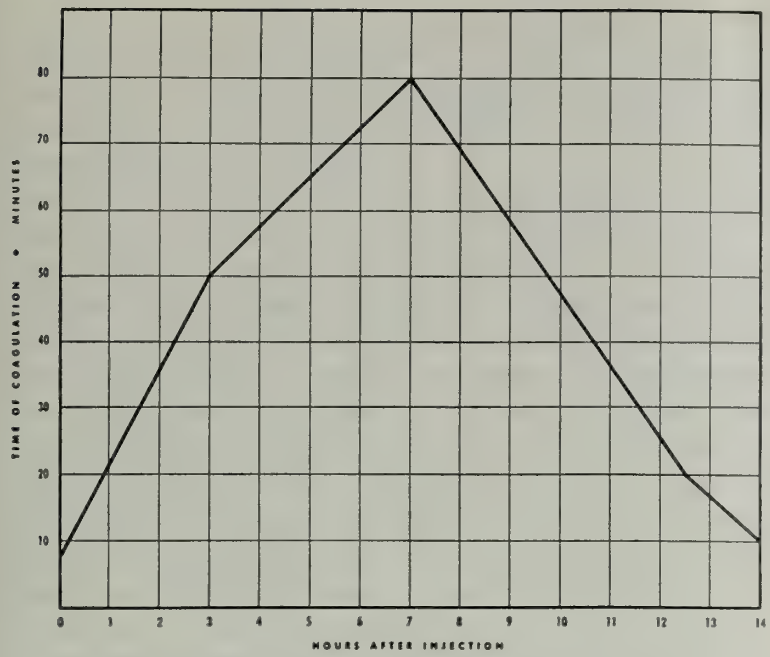

FIG. 2: Subcutaneous administration of 20,000 units of concentrated heparin in a 150 lb. man

levels being reached within seventy-two hours, but dropping below therapeutic levels on six occasions. The patient made a satisfactory recovery and was discharged after thirty days. Anticoagulants were discontinued at that time. Seven months later the patient suddenly developed pain and coldness in the left lower extremity from the knee down; anticoagulants were not given. Eleven months after this episode he developed evidence of a left hemiparesis which was transient, the only residual being a left facial weakness. Eight months later the second myocardial infarction occurred in the posterior base, and the patient was again placed on anticoagulants, this time for forty days. On discharge, anticoagulants were again discontinued and three months later he developed sudden coldness and pain in the entire right lower extremity; an embolus was removed from the right femoral artery and anticoagulants were re-instituted. The patient has remained under this therapy since that time (11 months, 20 days) without further incident.

IMPENDING CEREBRAL INFARCTION

There is increasingly strong evidence that vasospasm can occur in the cerebral vessels just as it does elsewhere in the vascular tree. We see many patients who have a series of transient or "little" strokes which may range in severity from slight numbness or weakness of the side of the face, or slight difficulty with speech, to hemiplegia, and which may last for from a few minutes to several days, with complete recovery. They may recur repeatedly in the same day. Some of these may be due to minute thrombi, but many, probably a majority, are based on temporary spasm of the arteries involved. These phenomena have been too casually regarded in the past. They frequently presage a major paralysis, with all of its potential tragedy. The frequency with which such reactions are immediately preceded by intense emotional strain or disturbance suggests that, in some instances, there is a direct relationship, but, in other instances, no such relationship can be established. Treatment has the best chance of being effective in these cases if undertaken promptly.

CASE REPORT

L. S., an 82 year old woman, vigorous and active for her years, in February 1947, suffered an acute

TABLE 9

IMPENDING CEREBRAL THROMBOSIS

					Prothrombin clotting time (Link-Shapiro Modification of Quick Method)		
Date	*Hour*	*Clotting time in minutes (Lee-White Method)*	*Heparin given by vein in mg. (given after clotting time determination)*	*Patient's whole plasma*	*Patient's plasma diluted (12.5%) with saline*	*Normal plasma (12.5%) diluted with saline*	*Dicumarol dose (Mg.)*
2/1/48	5.30 p.m.	6	—	—	—	—	300
	5:35 p.m.	—	50	—	—	—	—
	8:45 p.m.	7	50	—	—	—	—
	11:45 p.m.	4	70	—	—	—	—
2/2	3:15 a.m.	14	50	—	—	—	200
	7:30 a.m.	16	50	38.5	89.0	39.0	—
	11:30 a.m.	—	50	—	—	—	—
	2:40 p.m.	6	70	—	—	—	—
	5:40 p.m.	—	50	—	—	—	—
	8:50 p.m.	—	50	—	—	—	—
2/3	12:30 a.m.	—	50	—	—	—	—
2/4		—	—	—	—	—	200
2/5		—	—	36.0	107.5	32.7	100
2/6/48 to			—	25.0	—	—	25-50
5/1/49		—	—	45.0	—	—	(daily)

myocardial infarct. She was hospitalized for three months and maintained on anticoagulants during that period. She returned home and was able to carry on her usual mild social activity without symptoms of cardiac disease. She continued well until November 1948, when three times in the course of one day she experienced a sensation of numbness with loss of light touch involving the left side including her face, arm, trunk and leg. Each attack was progressively longer and more pronounced. Sensory perception was otherwise normal. Her muscular strength and reflexes remained normal. It appeared probable that she was threatened with impending cerebral thrombosis associated with an underlying condition of arteriosclerosis. A sludge formation may have developed repeatedly only to break up and pass through a narrowed lumen, such as Knisley has demonstrated in dogs, or a spasm of the vessel may have occurred repeatedly. She was placed on heparin and dicumarol. All numbness and sensory changes disappeared within forty-eight hours. The patient remained in the hospital until February 19. She then returned home and has remained on dicumarol therapy (eight years). Her blood prothrombin clotting time is tested weekly. Her average daily dose is 25 to 50 mg. There has been no return of cerebral symptoms or signs of thromboses elsewhere.

It is difficult to evaluate a new mode of therapy. After nine years of clinical experience it is our conclusion that we can prevent repeated embolizations from rheumatic hearts and that we can prevent thrombo-embolic phenomena in other parts of the body in patients ill with cerebrovascular accidents. We believe we have avoided serious clots in patients with impending infarction. Whether or not we have limited the thrombus from extending in any given case of cerebral thrombosis, it is impossible to state. To accumulate additional evidence on this point we are studying a comparative group of control and treated patients. We hope to have more information in the future.

IMPROVEMENTS IN TECHNIC

The technic of administering these drugs has undergone considerable change. Heparin is now available in highly concentrated form. As much as 20,000 units may be given in 1 cc. Such amounts may be given in a deep subcutaneous injection. Excellent anticoagulant activity may be expected starting one hour after giving the injection and lasting for from fourteen to twenty hours. It is not as painful and its effects are more reliable than the older forms of heparin mixed with gelatin and glucose, given intramuscularly. Unfortunately, the report of heparin activity by the sublingual route could not be substantiated. Heparin-like products, such as paritol, have proved to be too toxic for clinical use.

The number of oral anticoagulants has greatly increased. In addition to dicumarol, other coumarin derivatives are available. Tromexan is quicker acting and more rapidly excreted. Marcumar acts about as quickly as tromexan but is slowly excreted. Phenylindanedione acts rapidly and is excreted quickly. It gives urine an orange tint that may be confused with hematuria. It is advisable for the physician to master the vagaries of one drug and use it exclusively. In long term therapy dicumarol has been most widely employed.

Antidotes have improved. Vitamin K_1 given orally in a dose of 20 mg. will reduce unduly elevated prothrombin times to a therapeutic level in a period of six hours. Quicker action can be obtained by intravenous injection. The preparation is an oil and has to be given in an emulsion over a period of hours. This method, therefore, has little advantage over the oral route. The antidote to heparin is protamine. One hundred milligrams will counteract the effect of approximately 10,000 units of heparin, while fresh blood may be used to counteract bleeding from heparin or coumarin derivatives. Fresh blood, by direct transfusion technic, is preferred. Stored blood, because of the anticoagulant used in collecting it, is not a good coagulant agent.

ENZYMES

Before concluding this discussion, a word should be given concerning the use of trypsin. There has been a great deal of propaganda concerning its use to dissolve intravascular clots. In our laboratory[17] and in that of Tagnon[18] and others, it has been found that intravenous trypsin is a strong thromboplastic agent. Only when a high concentration has been reached in the body does it become an anticoagulant and then it makes the blood incoagulable. Most of our experimental animals died when given trypsin, from pulmonary emboli or from hemorrhagic effects.

HEMORRHAGE

Patients receiving therapy for periods of years often develop other pathologic changes such as malignant tumors. Any lesion which tends to bleed will bleed earlier and more profusely if the patient is receiving anticoagulants. We have been able to diagnose several neoplasms in an early stage.

CAUTION

A word of caution should be given. The use of anticoagulants should be undertaken only by physicians who have mastered it. They must be willing to devote the time and effort to following each case in minute detail. A reliable laboratory must be available. Only intelligent cooperative patients should be given long term therapy. The patient must be tested frequently. Antidotes must always be on hand. The physician cannot take a day off or a vacation unless he is covered by another physician equally skilled in the technic of this therapy. As a reward for this painstaking effort, many patients not amenable to any other form of treatment can be maintained as useful citizens.

Diabetes Mellitus

Practical Application of the Laboratory

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IN THE PAST DECADE the practice of medicine has undergone revolution in several respects, not the least important of which has been the influence of laboratory examinations in the diagnosis and management of disease. Laboratory tests that once were considered too difficult to perform to be practical have become commonplace, and hundreds of new tests have been described. If this new source of information has brought increased precision in the diagnosis and control of disease, it has also brought a great deal of confusion and bewilderment. Descriptions of new laboratory tests appear in the literature with overwhelming frequency; and, naturally, the initial description of a test is almost always a favorable one. Even the most conscientious physician concerned with a limited area of medical practice may have difficulty in making an intelligent choice of laboratory examinations to be done and a wise appraisal of the reported results. One might well slip to one extreme or another, that is, completely ignore the laboratory and assess the case at hand with older methods or, contrariwise, grasp at every new test and arrange the patient's management entirely on the basis of typewritten reports of laboratory examinations. The middle course between these two extremes is becoming increasingly difficult to follow. It is the purpose of this paper to discuss the practical application of laboratory aids in one area only, that of diabetes mellitus.

The wise selection of laboratory tests naturally must be related to the patient problem with which one is faced. In the case of diabetes mellitus these problems usually fall into one of several general groups: (1) diagnosis, (2) management of the severe labile ("brittle") diabetic patient, (3) man-

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Anticoagulants—Continued

SUMMARY

The use of anticoagulants is of proven value in pulmonary embolism, phlebitis, myocardial infarction and embolization in rheumatic heart disease. It is of possible value in the prevention of threatened myocardial infarction. It is experimental in cerebral thrombosis and in impending cases.

There have been improvements in heparin administration. New, effective oral anticoagulants are available. Vitamin K_1 is of value as an oral antidote. Trypsin given parenterally is potentially dangerous and is contraindicated.

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BIBLIOGRAPHY

1a. Barker, N. W., et al.: The Use of Dicumarol in the Prevention of Post-operative Thrombosis and Embolism, Surgery **17**:207, 1945.

1b. Zilliacus, H.: On the specific treatment of thrombosis. Supp. Acta Med. Scandinav. 1946.

2a. Wright, I. S., and Foley, W. T.: Use of Anticoagulants in the Treatment of Heart Disease, Am. J. Med. **3**:718, 1947.

2b. Foley, W. T., and Wright, I. S.: Long Term Anticoagulant Therapy for Cardiovascular Diseases, Am. J. M. Sc. **217**:136, 1949.

2c. Foley, W. T., and Wright, I. S.: The Use of Dicumarol in Office Practice, N. Y. Med. **6**:15, 1950.

2d. Wright, I. S.: Use of Anticoagulants, J.A.M.A., **163**:918, 1957.

3. Cosgriff, S. W.: Prophylaxis of Recurrent Embolism of Intracardiac Origin, J.A.M.A., **143**:870, 1950.

4. Askey, J. M., and Cherry, C. B.: Thromboembolism Associated With Auricular Filbrillation, J.A.M.A. **144**:97, 1950.

5. Bay, E. M.; Wright, R. A.; Jones, R. I.; Page, R. E., and Seide, M.: The Use of Anticoagulant Drugs in Ambulatory Patients, Circulation **2**:741, 1954.

6. Owren, S. G.: International Congress of Thrombosis and Embolism, Basle, 1954.

7. Burt: International Congress of Thrombosis and Embolism, Basle, 1954.

8. Beaumont, J.: International Congress of Thrombosis and Embolism, Basle, 1954.

9. Shapiro, S.: Hyperprothrombinemia, Exper. Med. & Surg. **2**:103, 1944.

9b. Brambel, C. E.: Thromboplastic Reagent, Arch. Surg. **50**:137, 1945.

10. Quick, A. J.: Hemorrhagic Diseases and Physiology of Hemostasis, Charles C Thomas, Springfield, Ill. 1954. p. 312.

11. Wright, I. S.; Marple, C. D., and Beck, D. F.: Myocardial Infarction, Grune and Stratton, New York, 1954.

12. Nichol, E. S., and Page, S. W.: Dicumarol Therapy in Acute Coronary Thrombosis, J. Florida M. A. **32**:365, 1946.

13. Keyes, J. W.; Drake, E. H.; Jones, T. N., and Smith, F. J.: Survival Rates After Myocardial Infarctions With and Without Long Term Anticoagulant Therapy, Am. J. M. Sc. **226**:607, 1954.

14. Suzman, M. M.; Ruskin, H. D., and Goldberg, B.: An Evaluation of Continuous Long Term Anticoagulant Therapy on the Progress of Myocardial Infarction. Second World Congress of Cardiology, Washington, D. C., 1954.

15. Foley, W. T., and Wright, I. S.: The Treatment of Cerebral Thrombosis and Embolism With Anticoagulant Drugs, Med. Clin. N. A. **3**:909, 1950.

16a. McDevitt, E.; Foley, W. T., and Wright, I. S.: Gerinnungshemmende Substanzen in der Behandlung der Zerebral-Thrombose und -Embolie, Die Medizinische, 24 Juli, 1954, Nr. 29/30.

16b. Wright, I. S., and McDevitt, E.: Cerebral Vascular Diseases, Ann. Int. Med. **41**:682, 1954.

17a. Taylor, A., and Wright, I. S.: Intravenous Trypsin, Circulation **10**:331, 1954.

17b. Taylor, A.; Overman, R. S., and Wright, I. S.: Studies With Intravenous Trypsin, J.A.M.A. **155**:347, 1954.

18a. Tagnon, H. J.: The Nature of the Mechanism of Shock Produced by the Injection of Trypsin and Thrombin, J. Clin. Invest. **24**:1, 1954.

19. Lund, F.: On Anticoagulant Therapy in Organic Peripheral Artery Disease. Second European Congress of Cardiology, Stockholm, September 1956.

20. Second Conference on Cerebral Vascular Disease, Princeton, January 1957. In press.

agement of the stable diabetic patient and (4) recognition and management of diabetic acidosis.

DIAGNOSIS OF DIABETES MELLITUS

Occasionally a patient presents himself with the classical symptoms of diabetes mellitus including polyuria, polydypsia and polyphagia but, more commonly, the first indication of abnormality is the detection of reducing substance in the urine during the course of routine examination or in the evaluation of another problem. Thus, the physician is most commonly faced with the problem of interpreting a positive Benedict's test obtained on routine urinalysis. In a significant proportion of all patients in whom this finding is made, causes other than diabetes mellitus exist and must be kept in mind. In a large series of patients (14,000) referred to Dr. Joslin and his associates for treatment or evaluation of diabetes, 14 per cent turned out to be non-diabetic.[1]

The Benedict qualitative test for glucose is based on the reduction of cupric ions, blue in solution, to the cuprous form which precipitates as yellow or red cuprous oxide. Any compound with reducing properties will cause a positive reaction. Compounds with a free aldehyde or ketone group will give a positive test; all sugars are in this category as well as many other compounds. The sugars that may be found in the urine* may be divided into those that are fermenting and those which are not. In the former category there are fructose, maltose and glucose. Fructosuria is a rare, benign disorder and maltosuria has no clinical importance. Of the fermenting sugars, only glucose is of clinical significance. Among the non-fermenting sugars, there are the pentoses, galactose and lactose. Pentosuria is a rare, benign metabolic disorder found most frequently in Jewish males. Galactosuria is also rare, is usually detected in infancy and is potentially a serious finding. Lactosuria occurs physiologically in the mother who is breast-feeding her infant. Some of the non-sugar reducing substances which may be found in the urine include the following: (1) substances used as preservatives in the urine specimens, e.g., chloroform, formaldehyde, (2) creatinine, (3) glucoronic acid and (4) homogentisic acid.

An important source of confusion is non-diabetic glycosuria; some causes of glycosuria in patients not having diabetes follow:

True Renal Glycosuria.—This is a rare disorder in which there is renal tubular inadequacy to reabsorb glucose from the glomerular filtrate. Thus, there is spillage of glucose into the urine at normal or even hypoglycemic blood sugar levels. There may be associated tubular defects involving the reabsorption of phosphate and amino acids (the deToni-Fanconi Syndrome).

Pseudorenal Glycosuria.—This term is applied to individuals who spill glucose into the urine at blood sugar levels only slightly below the normal threshold level. These individuals may represent a physiologic extreme in terms of the glucose reabsorptive capacity of the renal tubules rather than a pathologic condition. As a group, however, these individuals develop diabetes mellitus more frequently than does the normal population.

Glycosuria of Pregnancy.—A physiological lowering of the renal threshold for glucose occurs during pregnancy. From 10 to 20 per cent of pregnant women have glycosuria detected at one time or another.[2]

Glycosuria Associated With Cortisone Therapy.—Adrenocorticotrophic hormone and cortisone and its derivatives have been shown to cause elevation of the fasting blood sugar level, impairment of glucose tolerance and lowering of the renal threshold for glucose.[3, 4, 5] Thus, glycosuria is a common finding during therapy with such agents. These effects on carbohydrate metabolism are reversible and in themselves probably have no significance in terms of indicating a "pre-diabetic" state.

Alimentary Glycosuria.—A positive test for glucose may be obtained during the post-prandial period in normal individuals. The likelihood of post-prandial glycosuria occurring can be enhanced by many factors such as the ingestion of an abnormally large amount of carbohydrate, the existence of hyperthyroidism or a preexisting dietary regimen low in carbohydrate.

Confronted with a positive test for reducing substance in the urine of an otherwise normal appearing patient, the physician has a wide variety of diagnoses to exclude before he can properly consider his patient a diabetic patient. Here the laboratory may be almost indispensable in helping him to arrive at a sound conclusion. However, judgment exercised in the selection of laboratory tests and in obtaining them in logical sequence will prevent undue delay and expense.

The first step would be to examine a second urine specimen obtained when the patient is in the fasting state and in a manner to exclude artefacts. The presence of glucose *per se* may be detected quickly and easily through the use of a specific enzyme test. The enzyme glucose oxidase was isolated by Müller in 1928.[6] It has been shown to be highly specific for glucose[7, 8] but only recently has this specificity been taken advantage of in clinical application.[9] In this application, filter paper is impregnated with the reagents necessary to provide for the following reactions:

$$\text{Glucose} + O_2 \xrightarrow{\text{glucose oxidase}} \text{gluconic acid} + H_2O_2$$

$$H_2O_2 + \text{o-tolidine} \xrightarrow[\text{peroxidase}]{} \text{blue color}$$

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* The term melituria denotes the presence of any sugar in the urine; glycosuria or glucosuria is generally inferred to mean glucose in the urine.

A small strip of the paper is dipped into the urine specimen; in the presence of as little as 0.1 per cent glucose (undetectable with Benedict's reagent) a blue color will develop. One commercial paper strip ("Tes-Tape," Lilly) has a yellow dye added to the basic reagents, and is claimed to reflect glucose concentration up to 2 per cent by the color developed. The accuracy of this semi-quantitation has been seriously questioned,[10] and it would seem wise to consider the glucose oxidase test as a purely qualitative one, but of great value because of its specificity and sensitivity. The manufacturer of one commercial test strip, ("Clinstix," Ames) has pointed out the need to keep unused strips in a moisture-proof, opaque packet to insure their reliability.

Having established, without a great deal of difficulty, that glucose itself is present in the urine with the specific enzyme test and the approximate concentration with the Benedict reaction, one must turn to less convenient procedures. A persistently elevated fasting blood sugar is most convincing of the existence of diabetes mellitus. One is justified in repeating this test one or more times if an abnormal result is reported initially. One must keep in mind the normal range for the fasting blood sugar level in terms of the method being used by the laboratory performing the analysis. Of all the methods available for this determination, only a few exclude most of the reducing substances other than glucose, to give a "true" glucose value. For example, with the Folin-Wu method, the normal range of the fasting blood sugar level is 80 to 120 mgs. per 100 cc.; with the Nelson-Somogyi method, it is 60 to 90 mgs. per cent.

If the fasting blood levels are inconsistently or equivocally elevated, an oral glucose tolerance test should be performed. Many simplications of the standard procedure have been described; however, unless one has considerable experience with a particular modification, difficulty may be encountered in interpreting the laboratory report. With the standard oral test, one has several criteria with which to judge the results: the fasting level, the peak elevation and level at two and three hours. The latter is probably the most reliable. In the following table, the significance of these criteria, as generally accepted,[11] are indicated:

Test	*Highest Normal Blood Sugar Values*		*Rating if above normal*	*Interpretation*
	TIME (HRS.)	(MG./100 ML.)		
Standard Oral Glucose Tolerance (100 grams dose)	0	110	1	If any two of the three ratings are abnormal, the patient is considered diabetic.
	1	170 or	1	
	2	120		
	3	110	1	

The value of the test is usually increased if urine specimens are obtained just after each blood sample is drawn and tested with Benedict's reagent. When compared with the glucose tolerance curve, a rough inference of the renal threshold for glucose can be made. Failure of the blood sugar to return to or below the fasting level in two or three hours is highly suggestive of diabetes.

In the presence of significant hyperglycemia and glycosuria, one can safely make the diagnosis of diabetes mellitus, remembering that diabetes mellitus itself may be merely one manifestation of a more basic disorder such as Cushing's syndrome or hemachromatosis.

MANAGEMENT OF THE SEVERE, LABILE ("BRITTLE") DIABETIC

Ideally, one would like to have the Benedict's test reflect a one plus glycosuria or less throughout the day but, even in the best of circumstances, wide swings occur in this type of diabetes. The patient may demonstrate concurrently a three or four plus glycosuria and clinical evidence of hypoglycemia. Testing the urine for ketone bodies is of considerable value and should be done routinely along with the testing for sugar. Persistent, strongly positive tests for acetonuria warns the patient and doctor of impending difficulty.

A laboratory aid which is frequently neglected, possibly because it is felt to be a procedure feasible only in a hospital, is the quantitative estimation of glucose in the twenty-four hour urine specimen. The average patient can be instructed to collect a twenty-four hour urine specimen with reasonable accuracy and without neglecting his usual routine of urine testing before meals and at bedtime. Ten milliliters of toluene or refrigeration may be used as a preservative measure. The analysis itself can be done in the doctor's office by an individual with little technical training.*

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* The quantitative estimation of glucose in the twenty-four hour urine specimen may be performed as follows:[12] The specimen is stirred or shaken to insure thorough mixing: the total volume is measured in a large graduated cylinder. Five ml. of Benedict's quantitative reagent (available through pharmacies and laboratory supply houses for approximately $1.50 per 500 ml.) is added to a large pyrex test tube and heated to boiling over a low flame. A small pebble will prevent bumping of the solution. Moderate boiling of the reagent must be maintained until the titration is completed. Urine is added drop by drop from a one ml. pipette graduated in .01 ml. divisions, until the original blue color of the reagent gives way to a whitish or yellow color. The volume of urine that has been added to this point is noted. The Benedict quantitative reagent contains copper sulfate, potassium thiocyanate and potassium ferrocyanide. The end point depends on the reduction of cupric ions with the formation of white cuprous thiocyanate. The concentration of the glucose in the specimen is calculated as follows:

$$\text{glucose (gms./100 ml.)} = \frac{1}{\text{volume (ml.) of urine needed to reach end point}}$$

Example: 1. Total urine volume in 24 hour specimen, 2000 ml.
2. Volume of urine required to reach end point, 0.45 ml.

$$\text{gms. glucose (per 100 ml. of urine)} = \frac{1}{0.45} \text{ or } 2.2$$

$$\text{gms. glucose in 24 hour specimen: } \frac{2.2 \times 2000}{100} \text{ or 44 grams}$$

The twenty-four hour loss of glucose in the urine gives one an overall index of the patient's control. By subtracting the grams of glucose measured in series of three or more twenty-four hour urine specimens, from the grams of carbohydrate in the diet, one can estimate the grams of carbohydrate retained. The brittle diabetic may lose more than half the carbohydrate in his diet as glycosuria. When this occurs, the patient is in a precarious state from the standpoint of his nutrition as well as his diabetes. If he is retaining less than about 150 grams of dietary carbohydrate, he must make up the caloric deficit by catabolism of his own tissues.

Blood sugar determinations are usually of little value in the management of the labile diabetic patient. Serial determinations of the fasting blood sugar level tend to reveal wide fluctuations.

MANAGEMENT OF THE STABLE DIABETIC PATIENT

When diabetes has its onset in the middle or late life, it is usually mild and requires small doses of insulin or none at all. When associated with obesity, it is sometimes referred to as "Newburgh" diabetes. Control is generally easily achieved so that the before-meal checks of the urine for glucose are usually negative. In order to achieve finer control, blood sugar determinations can be taken three or four times during a day's period and adjustments made in the insulin dosage or diet. This group of patients should check their urine at least once daily for glycosuria, and if a positive reaction occurs commence a four times daily routine of testing for glucose and ketone bodies until the glycosuria disappears.

RECOGNITION AND MANAGEMENT OF DIABETIC ACIDOSIS

It is frequently difficult to decide whether one is dealing with diabetic acidosis or merely mild ketosis in a diabetic patient. Typically, this problem arises, in the hospital or home, in a patient who is a known diabetic and is found to have a three or four plus test for glycosuria and a moderate to strong test for acetone. The latter may indicate impending diabetic acidosis or, more commonly, it represents ketosis associated with fasting or a relative excess of either regular or long-acting insulin, the latter causing hypoglycemia and ketosis during the early morning hours. The ease with which the diabetic patient develops ketosis under these circumstances has been emphasized by Somogyi,[13] but is not generally appreciated. Since normally functioning kidneys rapidly clear ketone bodies, a strongly positive test for acetone in the urine may occur even though the plasma level of ketones is insignificant.

A more serious pitfall is represented by the patient who actually is in diabetic acidosis and whose urine is negative for ketone bodies. In the face of renal impairment, the plasma ketone bodies may be cleared slowly. The negative or mildly positive test for acetonuria in this situation obscures the existence of serious acidosis and lulls the physician into a false sense of security.

The question of whether a severe degree of ketosis exists or not can be quickly appraised by a simple, bedside determination of the level of ketone bodies in the plasma. In the method popularized by Duncan,[14] two drops of the patient's plasma (or serum) are placed in a Wassermann tube. Sufficient ammonium sulfate crystals are added to supersaturate the plasma. Two drops of sodium nitropresside reagent (5 per cent) are added, followed by two drops of ammonia water. The color developed is noted after about three minutes. A purple color denotes a trace or one plus; light blue, two plus and deep blue to black, a strongly positive reaction, three to four plus. If this test for ketone bodies is strongly positive (three to four plus), the plasma is diluted with an equal part of saline and a second test done; if this is strongly positive, a second dilution should be made and tested. A strongly positive reaction in the undiluted plasma is indicative of the presence of diabetic acidosis. The dilutions give an estimate of the degree of ketonemia, affording a guide in determining the initial dosage of insulin, and provide a baseline with which to gauge the progress of therapy. For reasons that are not well understood, insulin's effectiveness is diminished by heavy ketonemia. As ketonemia lessens, the effectiveness of insulin increases toward normal and the dosage schedule has to be adjusted accordingly.

In the ketosis due to fasting or hypoglycemia, the undiluted plasma usually is negative or only slightly positive when tested with the nitroprusside reaction.

In evaluating a patient suspected of having diabetic acidosis, one should obtain a urine specimen from the patient immediately, using a catheter if necessary and leaving an indwelling catheter in place if there is any question about the certainty of obtaining frequent specimens over the ensuing twelve hours. The urine obtained is tested for glucose and acetone. If these tests leave one unconvinced concerning the presence of diabetic acidosis, then one should test the plasma for ketone bodies. A blood specimen for sugar determination and plasma bicarbonate content may be obtained, but it should be emphasized that therapy need not and should not be delayed until these time consuming tests are completed and reported. When treatment for acidosis is instituted, the progress of therapy can be followed by testing the urine for sugar and ketone bodies every half hour or hour and the plasma for ketone bodies at two to three hourly intervals.

Klebsiella Pneumonia Meningitis

Successful Treatment of Adult Case With Cortisone and Antibacterial Agents

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THERE ARE TWO features of Klebsiella pneumoniae meningitis which became apparent in reviewing the literature of the subject: The relative rarity of the condition, and the associated high mortality rate.

In 1943, Ransmeier and Major[1] reported thirty cases from the literature. Sadusk and his associates[2] in 1949, reviewed the subject and accumulated fifty-four reported instances of the disease. Three years later Thompson and coworkers[3] published a comprehensive analysis of Klebsiella meningitis, citing 119 cases. Since the latter report thirteen additional cases have been reported.[4–14] Including the present case, 133 instances of Klebsiella pneumoniae meningitis are reported, attesting to the infrequency with which the condition is encountered.

Prior to the advent of chemotherapy, the mortality rate was overwhelming (fig. 1); only four cases survived and two of these were with debilitating residual defects (incoordination of gait and impaired vision). Since the availability of the various sulfonamides and antibiotics, the recovery rate has increased. However, only thirty-three cases of recovery are reported (50 per cent), three of which retained residual defects (combinations of mutism,

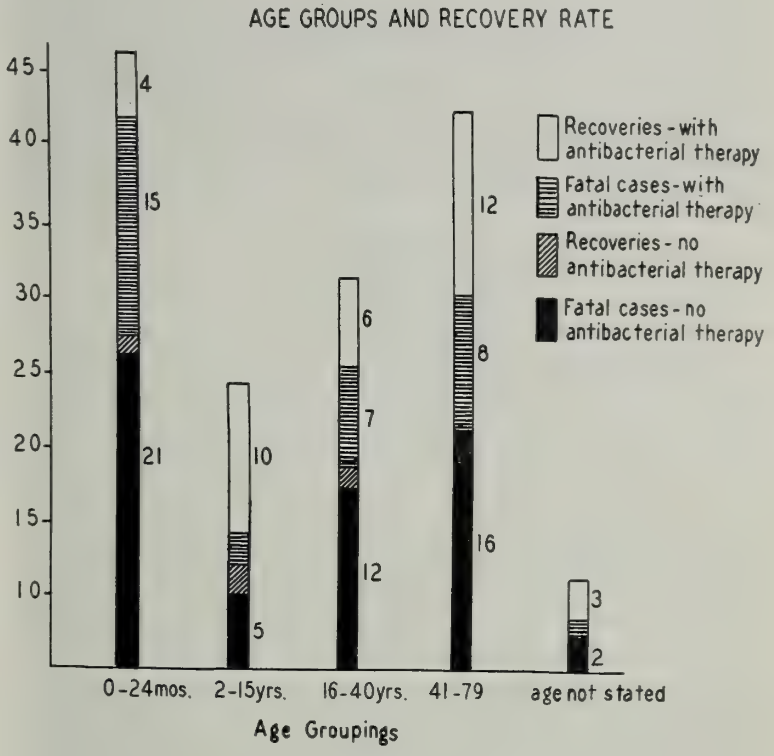

Figure 1.

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Diabetes—Continued

SUMMARY

Laboratory aids are discussed in terms of the diagnosis of diabetes mellitus and the management of the labile and stable types of diabetic patient and in terms of the early recognition and treatment of diabetic acidosis. Of particular value in diagnosis is the specific enzyme test for glucose, fasting blood sugar determinations and the standard oral glucose tolerance test. In the management of the brittle diabetic patient, the quantitative estimation of glucose lost in the urine per twenty-four hours is not difficult to perform and is of great value in assessing the patient's nutritional status as well as controlling his diabetes. The bedside test for ketonemia is worthwhile in the early detection of diabetic acidosis and in its subsequent treatment.

BIBLIOGRAPHY

1. Marble, A.: Treatment of Diabetes Mellitus, by Elliot Joslin and associates, 8th edition, Lea and Febiger, Philadelphia, Pa., 1946, page 785.
2. Forsham, P.: Textbook of Endocrinology, 2nd edition, edited by Robert H. Williams, W. B. Saunders Co., Philadelphia, Pa., 1955, page 436.
3. Sayers, G.; Burns, T. W.; Tyler, F. H.; Jager, B. V.; Schwartz, T. B.; Smith, E. L.; Samuels, L. T., and Davenport, H. W.: Metabolic Actions and Fate of Intravenously Administered Adrenocorticotropic Hormone in Man, J. Clin. Endocrinol. **9**:593, 1949.
4. Burns, T. W.; Engel, F. L.; Viau, A.; Scott, J. L., Jr.; Hollingsworth, D. R., and Werk, E.: Studies on the Interdependent Effects of Stress and the Adrenal Cortex on Carbohydrate Metabolism in Man, J. Clin. Invest. **32**:781-791 (August) 1953.
5. Earle, D. P.; Alexander, J. D.; Farber, S. J., and Pellegrino, E. D.: Observations on the Relation of Renal Function Changes to the Electrolyte and Glycosuric Effects of ACTH, Proc. of the Second Clinical ACTH Conference, John R. Mote, Editor, The Blakiston Co., New York, 1951.
6. Muller, D.: Studien uber ein neves Enzym Glykoseoxydase, I., Biochemische Zeitschrift **199**:136, 1928.
7. Keilin, D., and Hartree, E. F.: Properties of Glucose Oxidase (Notatin), Biochem. J. **42**:221, 1948.
8. Keilin, D., and Hartree, E. F.: Specificity of Glucose Oxidase (Notatin), Biochem. J. **50**:331, 1952.
9. Comer, J. P.: Semiquantitative Specific Test Paper for Glucose in Urine, Analyt. Chem. **28**: 1748, 1956.
10. Leonards, J. R.: Evaluation of Enzyme Tests for Urinary Glucose, J.A.M.A. **163**:260, 1957.
11. Lukens, F. O. W.: The Use of Laboratory Tests in Diabetes, J. Clin. Endocrinol. **16**:272, 1956.
12. Ham, T. H.: A Syllabus of Laboratory Examinations in Clinical Diagnosis, edited by Thomas Hale Ham, Harvard University Press, Cambridge, Mass., 1950, page 258.
13. Somogyi, M.: Effects of Insulin Upon the Production of Ketone Bodies, J. Biol. Chem. **141**:219, 1941.
14. Duncan, G. G., and Gill, R. J.: Clinical Value of a Simple Qualitative Test for Plasma Acetone in Diabetic Coma, Diabetes **2**:353, 1953.

disturbance of gait, hydrocephalus, paraplegia and mental retardation).

The relative rarity of the condition and the high mortality rate, in spite of chemotherapy and antibiotics, stimulates the need for increasing awareness of the clinical features of the disease and improved modes of therapeutic approach. It is toward this end that the present report is intended. A brief review of information available pertaining to characteristics of the condition will be presented. Experience with, and indications for, supplementary cortisone therapy to the presently employed, not routinely successful, antibiotic regimen will be considered.

CASE REPORT

(Refer to Figure 1)

J. H., a 79 year old white man was admitted to St. Louis City Hospital in a comatose state. Available historical data included two hospitalizations in the month prior to the present episode. On the first occasion he was admitted in an acutely alcoholic state with a laceration of his left hand. This was sutured and the patient was discharged to the clinic. Two weeks prior to the present admission, the patient was hospitalized for a staphylococcal infection of the wound of the left hand. The infection responded to penicillin and hot applications instituted in the eight day hospital stay. Four days prior to the present admission, the patient was treated in the emergency room for a 3.0 cm. laceration over the left fronto-parietal region. At that time acute alcoholism was noted. Twenty-four hours prior to admission chills and fever, hallucinations and gross, generalized tremors were experienced.

Physical examination on admission revealed an acutely ill, completely nonresponsive, white male who developed a grand mal convulsion while being examined. Vital signs included temperature 105 F., pulse 94 per minute (grossly irregular), respiratory rate 42 per minute, and blood pressure 230/90. Coarse tremulous movements of the extremities were apparent. There was an area of ecchymosis about the sutured laceration of the left fronto-parietal region, but there were no gross depressions of the skull. The external auditory canals were clear; the tympanic membranes were normal. The pupils were dilated and equal, but they did not react to light. Opthalmoscopic examination revealed early papilledema, but no hemorrhages or exudates were noted. There was a small amount of fresh blood in the left nasal passage; however, the mouth and throat were clear. There was moderate nuchal rigidity and distention of the cervical veins. In addition to increased A-P diameter, examination of the chest revealed coarse rhonchi and fine inspiratory rales in both lung bases. The heart was enlarged to the anterior axillary line, but no murmurs were audible. The rhythm was grossly irregular with a peripheral pulse deficit of 44 per minute. Examination of the abdomen revealed a firm liver edge 5.0 cm. below the costal margin. No splenomegaly was observed. There was a purulent urethral discharge. Rectal examination revealed a smooth, firm, moderately enlarged prostate. There was an inflamed laceration of the palmar surface of the left hand with contracture deformity of the third and fourth fingers. Although deep tendon reflexes were hypoactive throughout, no gross motor impairment or pathologic reflexes could be elicited. No response to painful stimuli was obtained.

The initial clinical impressions were: acute meningitis, possibly secondary to skull fracture; arteriosclerotic heart disease, enlarged heart, atrial fibrillation, functional class IV; and Laennec's cirrhosis of the liver.

Admission laboratory data included: Hemoglobin 10.0 gms., red blood cells, 2.53 million, hematocrit 32 volume per cent, white blood cells 7,350 (92 per cent polymorphonuclears). Urinalysis revealed specific gravity 1.010, pH 6.5, albumin, sugar and acetone were negative, microscopic examination showed occasional white blood cell in an uncentrifuged specimen. Lumbar puncture obtained grossly purulent spinal fluid which clotted immediately. Cell count revealed 8,000 white blood cells (88 per cent polymorphonuclears), and gram stain showed the presence of gram-negative diplococci. Roentgen examination of the chest was interpreted as increased markings in the right base and a pneumonitis in the left costophrenic area. Films of the skull failed to show evidence of fracture. The electrocardiogram disclosed atrial fibrillation and myocardial ischemia. The blood, spinal fluid, sputum (via tracheal aspiration) and urethral discharge were submitted for bacteriologic studies.

Three additional grand mal convulsions occurred during the first two hours of hospitalization. Cheyne-Stokes respiration ensued. Penicillin 2,000,000 units and sulfadiazine 5.0 gms. were administered intravenously at two hour intervals for three doses. Streptomycin 0.5 gms. intramuscularly every six hours, chlorpromazine 50 mg. intramuscularly every four hours, and Cedilanid 1.6 mg. intravenously constituted the remainder of the initial therapeutic regimen.

Eight hours following admission the cardiac rhythm converted to a sinus mechanism. The temperature was 104 F. and the respiratory rate was 52 per minute. As the clinical response to the overwhelming toxemia was inadequate, cortisone therapy was instituted. The initial dosage schedule was 300 mg. intramuscularly at six hour intervals. No further convulsive episodes occurred. Antimicrobial therapy was altered to include penicillin 1,000,000 units intramuscularly every two hours, streptomycin 0.5 gms. intramuscularly every six hours, and sulfadiazine 2.0 gms. intravenously every four hours. Digalen redigitalization and maintenance were accomplished.

Twenty-four hours following admission the patient's condition remained critical. He was comatose; however, some response was elicited to painful stimuli. Vital signs included temperature 104 F., pulse 160 per minute, and respiratory rate 72 per minute. Examination of the lungs revealed numerous coarse rhonchi throughout, but fine inspiratory rales were no longer apparent. Nuchal rigidity was marked. The laboratory reported Klebsiella pneumoniae organisms in the spinal fluid. Spinal fluid chemistries included protein 940 mg. per cent, chlorides 107 meq/L., "trace" of sugar, and the serologic studies were negative. Serum electrolytes were as follows: sodium 142 meq/L., potassium 3.6 meq/L., chlorides 107 meq/L., and CO_2 22.5 meq/L.

On the third hospital day the patient was semicomatose and irrational. Vital signs included temperature 101 F., pulse 110 per minute and respiratory rate 32 per minute. Nuchal rigidity was not as pronounced. The lungs continued to reveal scattered rhonchi, but the cough reflex returned and less frequent suctioning was required. Antibiotics were continued as before. Cortisone was reduced to 200 mg. every six hours. The laboratory reported pure cultures of Klebsiella pneumoniae in the blood, spinal fluid and urethral discharge. The sputum culture grew out alpha streptococcus and neisseria organisms. Lumbar puncture revealed hazy fluid which did not clot. Cell studies showed 13 cells (10 lymphocytes). Protein content was 175 mg. per cent.

On the fourth hospital day the patient was conscious although somewhat confused. Vital signs included temperature 100 F., pulse 110 per minute, and respiratory rate 28 per minute. Nuchal rigidity was only slight. The lungs continued to show some scattered rhonchi, but aspiration was no longer necessary. Streptomycin was reduced to 0.5 gms. intramuscularly every twelve hours. Cortisone was reduced to 100 mg. intramuscularly every six hours.

On the fifth hospital day the patient's mental status was markedly improved. Nuchal rigidity was no longer present. The temperature was recorded as 99 F. Cortisone discontinued. Antibiotics were administered as before. Spinal fluid studies revealed clear fluid with 4 cells (lymphocytes) and protein content 129 mg. per cent.

On the sixth hospital day the patient became ambulatory. Mental confusion was no longer apparent. Penicillin was reduced to 1,000,000 units every twelve hours, sulfadiazine was reduced to 1.0 gms. orally every six hours. The antibiotics were continued on this schedule until the fifteenth hospital day (ten days following the termination of cortisone therapy). Other pertinent laboratory data included serum protein 4.50 gms. per cent, albumin 2.62 and globulin 1.88. Cephalin-cholesterol flocculation was negative at twenty-four and forty-eight hours. Alkaline phosphatase was 1.3 mm. Spinal fluid protein determinations on the tenth and eighteenth hospital days were 82 mg. per cent and 62 mg. per cent respectively. Liver punch biopsy revealed periportal fibrosis. The patient gradually convalesced and was ready for discharge on the eighteenth hospital day.

DISCUSSION

Thompson and his associates[3] assess that the Klebsiella pneumoniae organism is responsible for meningitis at an incidence of 0.16 per cent. Anderson and Yount[10] cite approximately the same figure, less than 0.2 per cent of all cases of meningitis.

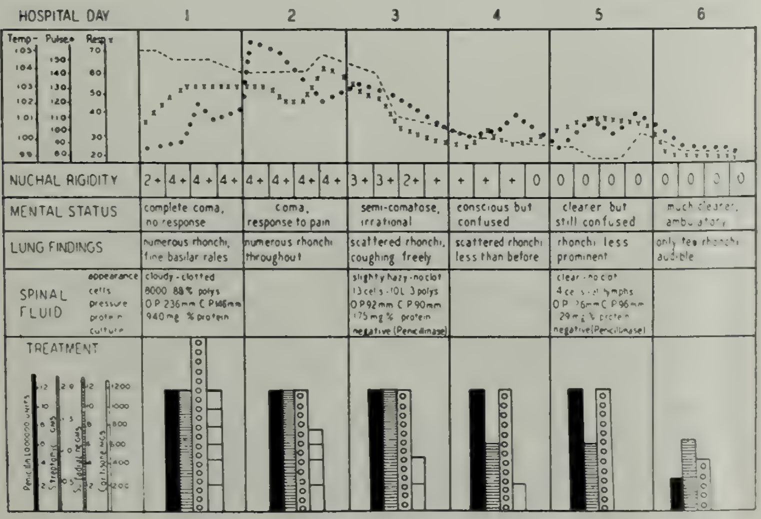

Figure 2.

Age and Sex Incidence.—In the 120 cases in which the information is recorded (figure 1) it is apparent that no age group is spared. Cases ranging from a newborn child to the 79 year old individual in the present report are represented. In the analysis of the occurrence it is noted that infants 24 months or younger are involved rather frequently, 34.2 per cent of the total. Approximately 50 per cent of the cases occurred in the prepuberty age group. There is some increased incidence in the older age group (41 to 79 years) as compared with the relatively young adult group; 30.0 per cent to 21.7 per cent.

In only ninety-six instances was information regarding the sex of the individual noted. As perhaps would be expected in Klebsiella pneumoniae infection, males were predominant. Males were involved in sixty-three cases. The percentage comparison of males to females is 65.6 to 34.4; the ratio is 1.91 to 1.0.

Clinical Characteristics.—The varied age range in which the disease occurs renders considerable difficulty in delineating a syndrome due to Klebsiella organism per se. In previous publications[1, 3, 15] a focus of infection has been stressed. The sites encountered, in the order of frequency, have been middle ear and mastoid, lungs, wound infection (particularly skull fractures), accessory air sinuses, uterus, pharynx, umbilical infection, enteritis, prostate, gallbladder and in arthritis. In approximately one third of the cases no focus of infection could be assigned. The majority of the latter group of cases have occurred in infants. Some reports include the occurrence of petechiae and the overwhelming type infection which has led to confusion with meningococcemia and meningococcic meningitis. The variation in the clinical course is exemplified by comparing the present case with the course of the patient reported by Bell.[14] In that particular instance the patient, a woman, exhibited a chronic course, a readily demonstrable focus of infection and did not develop meningeal infection until the forty-ninth hospital day. This is at considerable variance with the overwhelming toxemia and moribund appearance of the present case.

In the analysis of data, positive blood cultures are recorded in thirty-five instances. Of the seventeen cases prior to antimicrobial agents, only two survived; one of which had residual impairment of vision. The eighteen cases with application of specific antibacterial therapy revealed six recoveries or approximately 33 per cent. The limited number of cases is not adequate for accurate statistical conclusion as to the prognostic implication of positive blood culture; however, it would appear that the outcome is somewhat more ominous when bacteremia is present.

The evaluation of cell and protein content of the spinal fluid is not characteristic. The frequency with which gelatinous type fluid is reported seems significant and will be discussed in more detail below.

It is of interest to note that initial direct bacteriologic studies on several occasions have been confused with meningococcal organisms. The pleomorphism which Klebsiella exhibits quite frequently leads to confusion with the above mentioned organism as well as with Hemophilus influenzae. The importance of having available immediate competent bacteriologic facilities is apparent. The variation in response of these organisms to various drugs as well as the difference in overall prognosis, seems obvious in this respect. There are no clinical aids short of bacteriologic identification to the diagnosis of Klebsiella meningitis. The wide age range and the tendency toward overwhelming toxemia with signs, symptoms and laboratory findings of purulent meningitis would not differentiate this condition from the other bacterial meningitides.

ANTIBIOTICS

In only sixty-eight cases receiving antibacterial agents was there adequate information for analysis of efficacy. With the exception of the early era of sulfa drugs, most cases were treated with combinations of drugs which renders conclusive data as to individual drug administration, although combinations of the various agents were generally employed. The more recent wide-spectrum antibiotics have not had enough application to allow conclusive statement. The optimum approach would be that of specific therapy on the basis of sensitivity of bacterial strain isolated. No doubt in some instances the clinical emergency will necessitate initiation of therapy before such valuable information is available. The relative diffusion rate of sulfadiazine into the spinal fluid would encourage its particular use. Penicillin frequently is not effective against Klebsiella.[16] Certainly if the organism were readily identifiable on smear the elimination of the latter drug would be indicated; however, as previously mentioned, this is not always possible.

TABLE I

ANTIBACTERIAL THERAPY* IN FRIEDLANDER'S BACILLUS MENINGITIS

Drug	*Number of Cases*	*Recoveries*	*Per Cent Effective*
Sulfanilamide	21	7	33
Sulfapyridine	8	4	50
Sulfadiazine	26	17	65
Penicillin-parenteral	35	20	57
Penicillin-intrathecal	23	14	61
Streptomycin-parenteral	25	14	56
Streptomycin-intrathecal	19	11	58
Chlortetracycline	3	2	66
Chloramphenicol	3	3	100

* Many of the above listed drugs were used in combination.

Studies on diffusion of antibiotics to therapeutic levels in the spinal fluid would indicate that streptomycin,[17] chlortetracycline[18] and oxytetracycline[19] would not be effective unless administered intrathecally. Several articles referable to the advantages and disadvantages of intrathecal antibiotic administration are available.[20-23] As this method was not employed in the present situation no further discussion of this aspect will be presented. Chloramphenicol[24, 25] and tetracycline[19] have been demonstrated to pass the blood-brain barrier relatively rapidly and in therapeutic concentrations. Lack of specific data in the present disease would not allow conclusive statements; however, consideration would certainly be warranted in the future.

ADRENAL STEROIDS

Finland and his associates[26, 27] in 1950, demonstrated that the administration of ACTH to patients with pneumococcal pneumonia had a prompt and remarkable effect on the toxicity so commonly associated with the disease. Further studies lead to the conclusions that release of adrenal steroid hormone exerted no effect on the disease producing organisms, however, the steroids did completely neutralize the effect of the toxins produced by the organisms on the cells of the host and, thereby, the clinical symptoms were ameliorated. Kinsell's speculation concerning the mechanism by which such "antitoxic" effect might occur suggest three possibilities. The substance administered: (1) might destroy or absorb the toxin; (2) might exert its antitoxic effect at the level of the cell membrane altering permeability of cells so that the toxin was not able to enter, (3) or might exert its action within the cells protecting enzyme systems from the action of toxins.

It was felt that any one or all of these sites of action could be in effect. It is clearly stated that the hormones must be administered in conjunction with adequate antibacterial therapy. It also was not intended to imply the steroids in all infections but, rather, in those situations in which debilitation was present prior to infection and poor "response" is apparent. In the latter situation the administration of ACTH and cortisone or both "will represent a life saving procedure."

Since the preliminary studies, adrenal steroid hormones in conjunction with adequate antibiotics (this point, of necessity, is emphasized) have found excellent application in a number of acute overwhelming infections. The rather remarkable results in the alcoholic, cirrhotic, debilitated individual with acute lobar pneumonia, usually pneumococcal, in whom no leukocytic or febrile response has been instigated by the infection, has been relatively common in our experience on the wards of a large municipal institution. The life saving response of similar treatment in "bacterial shock" of varied origin has been quite striking.[29]

Jahn and co-workers[30] have reported recently "most impressive results" with antibacterial and hormonal agents in meningitis. Favorable reports are now available recording the adjunctive usage of steroids in a number of infectious diseases.[30-35] The only unfavorable situations have arisen in connection with reactivation of arrested tuberculous infections.[36, 37] In the latter regard Shane and Riley[23] reported in their experience that cortisone could be utilized in the presence of active tuberculosis provided effective antimicrobial therapy was also administered. The latter report is of some additional interest in that it was directed toward the treatment of tuberculous meningitis.

The encouraging clinical results are not, however, without some relatively disfavorable animal experimentation studies. Glaser and associates,[38] Mogabgab and Thomas[39] and, more recently, Jawetz[40] have contributed significant experimental data. The detrimental findings in these studies are summarized as follows: (1) cortical steroids exhibit no inhibitory effect on the growth of bacterial organisms; (2) dissemination of bacteria occurs due to the failure to form "inflammatory walls"; (3) definite antifibroblastic qualities are demonstrable in the presence of the hormones which might delay healing dependent on such a process, and (4) there is an increased susceptibility to various organisms; many of which have a low pathogenicity in the absence of steroids. Jawetz suggests further as possible clinical application that should an organism resistant to co-administered antibacterial therapy be encountered, rapid dissemination and fatal outcome may result with usage of steroids.

Although some question arises as to the ability to protect directly animal studies into clinical practice, primarily concerning dosage adjustment of steroids and antibiotics, as well as the dose and virulance of the bacterial organism concerned, it does appear that certain hazards to injudicious corticoid administration are apparent. It would seem, however, that well supervised application of steroids with utilization of adequate antibacterial agents (as attested to by bacterial sensitivity studies) are of considerable benefit in some infections, particularly the overwhelming variety in debilitated "non-responsive" individuals.

The indications for the use of steroids in Klebsiella pneumoniae meningitis, in conjunction with adequate chemotherapeutic and antibiotic agents, may now be considered. (1) The infection is prone to occur in infancy and the older age groups (fig. 1) where debilitation and inability to respond would seem most prevalent. Certainly no question can be invoked in the chronic alcoholic with varying degrees of hepatic impairment. (2) Although antibacterial therapy has greatly influenced the mortality rate which has decreased from 93.3 per cent to 50.5 per cent; the latter figure is still quite formidable. It is admitted that inadequate case studies are available to evaluate some of the newer wide-spectrum antibiotics; however, the exigency of the situation would tend to indicate that perhaps a sizeable group of the fatalities are due to the toxemia accompanying the infectious process. (3) The third point favoring administration of the steroids in Friedlander's meningitis pertains to the fibroblastic stimulation which this particular organism invokes. This was demonstrated in the excellent experimental studies conducted by Wood and his associates in observing the effects of Klebsiella infections in the lungs of mice.[41] The factors contributing unfavorable results in treatment of tuberculous meningitis are pointed out by Shane and Riley;[23] mechanical obstruction of the circulatory channels of cerebrospinal fluid by exudate, the inability of antimicrobial agents to penetrate avascular tissue and reach organisms so confined, and the necessity of prolonged intrathecal drug administration which may in itself produce local irritation. These principles may well be applied in the case of Klebsiella meningitis. The frequent reports of gelatinous type spinal fluid and the not insignificant occurrence of hydrocephalus in these cases lends support to this supposition.

The relatively high mortality rate of the condition even with antibacterial agents would appear stimulus enough for new approaches to therapy. The realization of the possible benefits to be derived from the administration of cortisone, particularly in light of the facts that phagocytic activity is not impaired and specific antibody formation is not interfered with, has led to the usage of cortisone in a case of Klebsiella pneumoniae meningitis which exhibited extreme toxemia. It is not intended to acclaim the efficacy on the basis of one successful case nor is it intended to encourage injudicious steroid administration; but rather to relate experience with such a situation and report the favorable results. The final decision as to the place of adrenal steroids in infection will have to await more conclusive experimental and clinical studies.

SUMMARY

1. A case study in a 79 year old chronic alcoholic, debilitated man with Klebsiella pneumoniae bacteremia and meningitis is presented. The successful outcome with treatment consisting of sulfadiazine, penicillin and streptomycin (parenteral only) in conjunction with cortisone is related.

2. The age, sex incidence and some of the clinical features of the previously reported 132 cases from the world literature, are recorded.

3. The antibacterial agents, which have been and are now in use, are considered.

4. Some of the clinical and experimental data relating to the place of adrenal steroid hormones in infectious states are reviewed.

5. The indications for the use of cortisone in Friedlander's meningitis are proposed. It is intended that the benefit of experience in this one

case with overwhelming infection might provoke judicious usage and further reports of similar situations. There is a definite need for further evaluation, both clinical and experimental, of the role of adrenal steroids in infections.

BIBLIOGRAPHY

1. Ransmeier, J. C., and Major, J. W.: Friedlander's Bacillus Septicemia and Meningitis: Report of a Case and Autopsy, With an Analysis of 29 Cases Collected From the Literature, Arch. Int. Med. **72**:319, 1943.

2. Sadusk, J. F.; Relman, A. S.; Wagner, R. R., and Barnett, R.: Friedlander's Bacillus Meningitis Treated With Streptomycin, Am. J. Med. **6**:522, 1949.

3. Thompson, A. J.; Williams, E. B.; Williams, E. D., and Anderson, J. M.: Klebsiella Pneumoniae Meningitis: Review of the Literature and Report of a Case With Bacteremia and Pneumonia, With Recovery, Arch. Int. Med. **89**:405, 1952.

4. Bombardier, J. P.: Meningitis Due to Friedlander's Bacillis in Infant, Union Med. Canada **80**:840, 1951.

5. Trice, P. A., and Townsend, T. E.: Meningitis Due to Klebsiella Pneumoniae: Report of Two Cases With the Use of Streptokinase and Streptodomase in One Case, J.A.M.A. **149**:1471, 1952.

6. Balmes, J.; Bertrand, L., and Mallet, H.: Meningitis Due to Friedlander's Pneumobacillus: Cure After Chloramphenicol Therapy Following Various Therapeutic Attempts, Arch. Fr. Pediat. **9**:1108, 1952.

7. Eberlie, W. J.: Friedlander's Bacillus Meningitis, With Recovery, Brit. M. J. **1**:1204, 1953.

8. Blechner, M.: Friedlander's Bacillus Meningitis in Children: Report of Two Cases. Acta Med. Oriental. Israel Med. J. **12**:51, 1953.

9. Corcos, V.: Meningitis Due to Friedlander's Pneumobacillus in an Eight Months Old Infant; Sensitivity of the Bacteria to Chloromycetin; Recovery, Arch. Fr. Pediat. **10**:647, 1955.

10. Anderson, G., and Yount, E.: Friedlander's Meningitis. Report of a Case Complicating Friedlander's Pneumonia With Recovery, N. Carolina M. J. **14**:579, 1953.

11. Bellora, A.: Meningitis Due to Klebsiella Pneumoniae in a Newborn Infant, Prensa Pediat. **4**:180, 1953.

12. Montuschi, E.: A Case of Bacteriam Friedlanderi Meningitis, Brit. M. J. 1272 (Nov. 27) 1954.

13. Steiner, B.: Case of Meningitis in Newborn Caused by Friedlander's Bacillus, Orc. **95**:1100, 1954.

14. Bell, A. L. L., Jr.: Treatment of Meningitis Due to Friedlander's Bacillus: Review of Specific Therapy and Report of a Case Successfully Treated With Streptomycin and Sulfadiazine That Had Failed to Respond to Chlortetracycline, N. England J. Med. **252**:1926, 1955.

15. Di Figlia, S. E., and Cramer, C.: Friedlander's Bacillus Meningitis With Liver Abscess and Recurrent Bacteremia and Analysis of Cases Receiving Specific Therapy, New York J. Med. **51**:761, 1951.

16. Welch, H.: Principles and Practice of Antibiotic Therapy, pp. 699, New York: Medical Encyclopedia 1954.

17. Zintel, H. A.; Flippin, H. F.; Nichols, A. C.; Wiley, M. M., and Rhoads, J. E.: Studies on Streptomycin in Man. I. Absorption, Distribution Excretion and Toxicity, Am. J. M. Sc. **210**:421, 1945.

18. Hall, B.: Absorption and Distribution of Aureomycin in Man: Review of Literature and Study of Concentration of Aureomycin in Serum, Urine and Cerebrospinal Fluid After Oral Administration, Ann. Int. Med. **40**:743, 1954.

19. Wood, W. S.; Kipnis, G. P., and Dowling, H. F.: Concentrations of Tetracycline, Chlortetracycline and Oxytetracycline in Cerebrospinal Fluid After Intravenous Administration, Antibiotics Ann. 1953-54 pp. 632, New York Medical Encyclopedia 1953 p. 88.

20. Weinstein, L.; Goldfield, M., and Adams, D.: Study of Intrathecal Chemotherapy in Bacterial Meningitis, M. Clin. North America **33**:1363, 1953.

21. De, S. N.: Streptomycin in Development of Hydrocephalus in Tuberculous Meningitis, Brit. M. J. **2**:214, 1949.

22. Cairns, H.; Smith, H. V., and Vollum, R. L.: Tuberculous Meningitis, J.A.M.A. **144**:92, 1950.

23. Shane, S. J., and Riley, C.: Tuberculous Meningitis: Combined Therapy With Cortisone and Antimicrobial Agents, N. England J. Med. **249**:829, 1953.

24. Gruhzeit, O. M.; Fisken, R. A.; Reatner, I. F., and Martino, E.: Chloramphenicol, Antibiotic: Pharmacological Studies in Animals, J. Clin. Investigation **28**:943, 1949.

25. Ross, S.; Bischoff, H.; Presser, W., and Orr, W.: Some Observations on Absorption and Excretion of Aureomycin and Chloramphenicol, J. Clin. Investigation **28**:1050, 1949.

26. Finland, M.; Kass, E. H., and Ingbar, S. H.: Effects of ACTH in Primary Atypical (Viral) Pneumonia and Pneumococcal Pneumonia. Proc. First Clinical ACTH Conference, 1950, The Blakiston Company, Philadelphia.

27. Kass, E. H.; Ingbar, S. H., and Finland, M.: Effects of Adrenocorticotrophic Hormone in Pneumonia: Clinical, Bacteriological and Serological Studies, Ann. Int. Med. **33**:1081, 1950.

28. Kinsell, L. W.: The Clinical Application of Pituitary Adrenocotrophic and Adrenal Steroid Hormones, Ann. Int. Med. **35**:615, 1951.

29. Ezzo, J. A., and Knight, W. A.: Bacterial Shock—To Be Published.

30. Joh, J. P., et al.: The Combination of ACTH Cortisone, Hydrocortisone With Antibiotics in the Management of Overwhelmingly Severe Infections, J. Pediat. **44**:640, 1954.

31. Baumann, F.; Pearson, D. E., and Levin, M.: Adrenal Cortical Steroids in the Management of a Case of Meningococcemia, J. Pediat. **43**:515, 1953.

32. Spink, W., and Hall, W.: The Influence of Cortisone and Adrenocorticotrophic Hormone on Brucellosis, J. Clin. Investigation **31**:958, 1952.

33. Wisseman, C.; Paterson, P.; Smadel, J.; Diercks, F., and Ley, H.: Studies on Cortisone and Antibiotics for Prompt Therapeutic Control of Typhoid Fever and Scrub Typhus, J. Clin. Investigation **33**:264, 1954.

34. Workman, J.; Hightower, J.; Borges, E.; Furman, J., and Parker, R.: Cortisone as an Adjunct to Chloramphenicol in Treatment of Rocky Mountain Spotted Fever, N. England **246**:962, 1952.

35. Montgomery, M. M.; Benedek, T. G., and Poske, R. M.: Relation of ACTH and Cortisone to Infection, M. Clin. North America 81 (January) 1955.

36. Editorial: Deleterious Effect of ACTH and Cortisone on Tuberculosis, N. Eng. J. Med. **245**:662, 1951.

37. LeMaistre, C.; Tompsett, R.; Muschenheim, C.; Moore, J., and McDermott, W.: Effects of Adrenocorticotrophic Hormone and Cortisone in Patients With Tuberculosis, J. Clin. Investigation **30**:445, 1951.

38. Glaser, R. J.; Berry, J. W.; Loev, L. H., and Wood, W. B., Jr.: The Effect of Cortisone in Streptococcal Lymphadenitis and Pneumonia, J. Lab. & Clin. Med. **38**:363, 1951.

39. Mogabgab, W. W., and Thomas, L.: The Effects of Cortisone on Bacterial Infection, Group A. Hemolytic Streptococcal Infection in Rabbits, J. Lab. & Clin. Med. **39**:271, 1952.

40. Jawetz, E.: Effect of Cortisone on Therapeutic Efficacy of Antibiotics in Experimental Infections, Arch. Int. Med. **93**:850, 1954.

41. Wood, W. D., Jr.; Sale, L., and Smith, M. E.: Studies on the Mechanism of Recovery in Pneumonia Due to Friedlander's Bacillus, J. Exper. Med. **86**:239, 1947.

Goiter

Problems Encountered in Everyday Practice; Their Diagnosis and Treatment

ROBERT W. BARTLETT, M.D., *St. Louis*

As is well known to all, this is a part of the country in which goiter is extremely common and if physicians are to treat intelligently the many patients afflicted with this disease, they must be able first of all to identify the various types of goiters as they are encountered and, secondly, have an understanding of the methods of treatment which have proven safest and surest in a given case.

Inasmuch as the smooth, soft, symmetrical, simple colloid goiter is so common, one can, I believe, without apology, make a few comments on it. It has been taught for years that an inadequate iodine intake is mainly responsible for the development of simple goiter and, in addition, it has been learned more recently that certain vegetables—members of the cabbage family—when taken in excess have marked goitrogenic effect. I think it is significant, however, that simple goiters seem to appear most frequently during times of physiologic stress, such as at puberty, during adolescence, and in association with pregnancy, which to my mind represents a compensatory hypertrophy of the gland in an attempt to furnish an adequate amount of thyroxin to provide for an increased need.

In my experience, many of these colloid glands will decrease in size following the administration of thyroid extract in adequate doses, rather than with the giving of iodine, and certainly the performance of thyroidectomy is to be condemned as a grave injustice to this patient. However, if a colloid goiter has grown sufficiently large as to produce pressure symptoms or to be definitely unsightly, surgical removal is not only justified but indicated.

Another problem which confronts physicians with great regularity concerns the separating of the thyrotoxic patient from the one suffering from functional nervousness. To complicate the picture further, the latter individual also may happen to have a simple colloid goiter and the incorrect treatment in such a case will be disastrous, as I shall point out later.

It is therefore tremendously important to identify properly these two groups of patients and, fortunately, there are certain features of the history, physical examination and laboratory findings which are quite characteristic of each. Now, briefly, as regards history, the nervousness of thyrotoxicosis is physical as demonstrated by the fact that the patient just cannot sit still; she finds herself irritable and cries with little provocation; she usually awakens in the morning refreshed but tires rapidly as she performs her daily duties; and she is heart conscious upon mild exertion. Weight loss occurs even with a good appetite and she finds herself intolerant to heat.

By contrast, the victim of functional nervousness complains of "inward tension," awakens tired each morning and remains thus throughout the day. She is apt to notice "racing or fluttering" of the heart even when at rest and if there is a weight loss, it is usually associated with a poor appetite and resulting decreased caloric intake. The neurotic patient may be intolerant both to heat and cold, sweats while under mild tension and notices characteristically that she has cold, moist hands and feet.

Upon physical examination the thyrotoxic individual usually exhibits a palpable goiter with or without thrills and bruits; her hands are warm and there is a fine fast tremor, a constant tachycardia and overactive heart action. Invariably there is a widened pulse pressure as the result of an increased systolic and decreased diastolic pressure.

By comparison, the neurotic individual does not show a thyroid enlargement unless perchance a harmless colloid goiter is present through coincidence, the palms are cold and sweaty, the pulse is fast one minute and slow the next, thus illustrating the feature of inconstant tachycardia, and the pulse pressure is normal.

A careful history and physical examination are ordinarily sufficient to permit one to make the correct diagnosis between functional nervousness and thyrotoxicosis in most instances, but when laboratory aids seem necessary one finds in thyrotoxicosis that the basal metabolic rate usually is elevated, the protein-bound iodine determination increased above the normal range of 4.5 to 8.5 micrograms and, finally, if a radioactive iodine uptake study is made, more than 40 per cent of the tracer dose will have been taken up by the thyroid gland in twenty-four hours.

It is the physician's responsibility to see that an absolute minimum of these unfortunate neurotics are subjected to thyroidectomy since they are made so much worse by the additional psychic and physical trauma incident to a surgical procedure. In passing, I might add that any physician who has had a rather extensive experience in thyroid surgery, has occasionally operated on one of these functionally nervous individuals as a result of errors in

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Presented at the 99th Annual Session, Missouri State Medical Association, Kansas City, March 31-April 3, 1957.

diagnosis and I can state with authority that these people return to haunt you.

I would like next to consider the recognition and management of cases of acute thyroiditis which are encountered from time to time. The outstanding presenting symptoms are pain and tenderness in the thyroid region, usually confined to one indurated lobe for the first week or two, followed by similar involvement of the second side. All patients experience various degrees of malaise and have fever varying from 100 F. all the way to 105 F. Dysphagia is also a common complaint.

Suppuration is extremely rare and it is interesting to note that a history of a preceding upper respiratory infection can be obtained not infrequently, leading to the belief that a virus infection is the probable etiology. This assumption is borne out by the fact that antibiotics have no effect upon the course of the disease which may persist for many weeks or months before the gland eventually returns to normal size and consistency. Evidence of hyperthyroidism does not appear, except rarely, in acute thyroiditis; however, Keating[1] et al noted the eventual development of myxedema in four of sixteen patients due, no doubt, to extensive subsequent fibrosis of the gland.

The two forms of chronic thyroiditis, struma lymphomatosa (Hashimoto) and struma fibrosa (Riedel), are sufficiently uncommon as not to warrant discussion at this time.

Another problem which may confront physicians in daily practice concerns the plan of treatment for the patient who presents herself suffering from a goiter plus another unrelated major illness. In most instances the lesion constituting the greater threat to life will be the one attacked first, but certain modifications of this general plan may become necessary, depending upon whether or not the patient is thyrotoxic. For example, the woman with a toxic goiter plus carcinoma of the breast or gastrointestinal tract should have suppressive treatment with one of the antithyroid drugs, such as propylthiouracil, for perhaps three weeks in order to obtain temporary control of the thyrotoxicosis, after which appropriate surgery for the malignancy can be carried out with safety. At a somewhat later date definitive treatment of the toxic goiter can be instituted. On the other hand, if the woman has toxic goiter and symptomatic gallstone disease, which though at times distressing will nevertheless not kill her, one is well advised to take care of the toxic goiter first, then some months later perform cholecystectomy as an elective procedure. I think it is important to emphasize at this point that diabetes and independent heart disease can not be kept under control without eliminating a coexistent thyrotoxicosis.

By contrast, from time to time one finds combinations such as nontoxic nodular goiter and uterine prolapse or silent gallstones. Under these circumstances one can be guided to a large extent by the patient's own opinion as to which bothers her the most; however, as will be discussed later, when a solitary adenoma of the thyroid is present I always advise the patient to have that taken care of first.

The treatment of thyrotoxicosis has become confused in recent years because of the increased number of effective means of therapy which have become available. The type of treatment may vary both with the age group into which a particular patient falls and with whether one is dealing with diffuse hyperplastic toxic or nodular toxic goiter. The principal aim in a given case should be to utilize the method of treatment which embodies safety plus a high expectation of permanent cure, and which, in addition, is economical both of the patient's time and money.

I will first consider diffuse hyperplastic goiter and try to evaluate the merits of the methods which have been advocated for its control. The antithyroid drugs were introduced in 1943 by Astwood as definitive treatment for toxic goiter and eventually several acceptably safe derivatives of thiourea, such as propylthiouracil, were developed which would render the patient euthyroid. Unfortunately, however, numerous studies of large series of cases showed that following the cessation of treatment with these drugs the relapse rate approximated 70 per cent. As a consequence, this

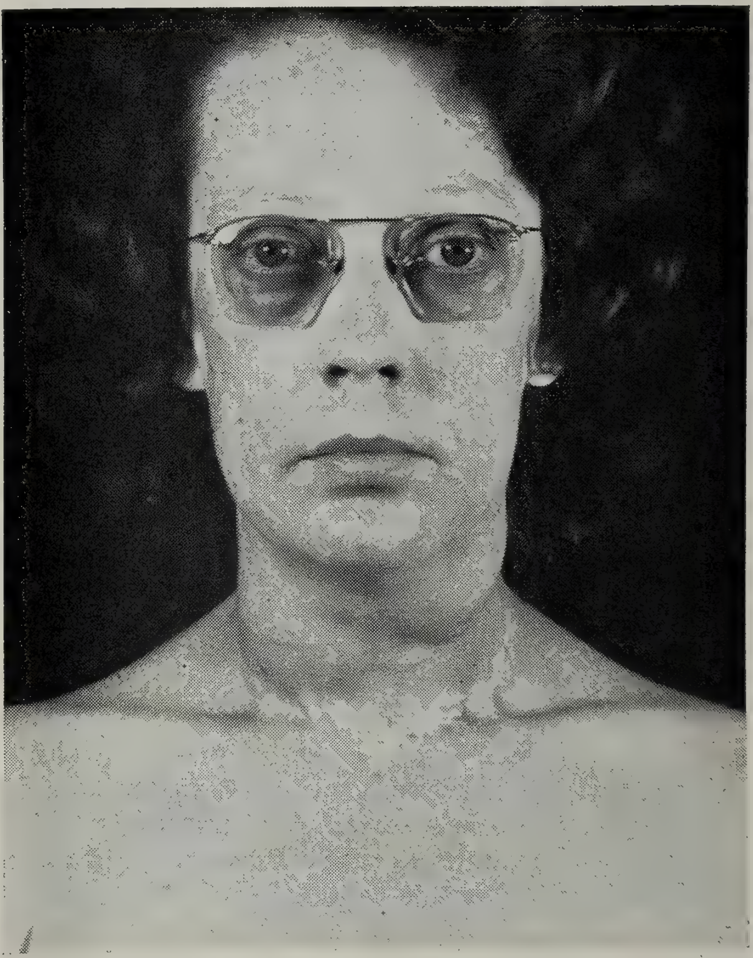


Fig. 1. Mrs. L. H., aged 38. Three previous incomplete thyroidectomies plus x-radiation performed elsewhere for toxic exophthalmic goiter. Obvious persistent masses upper left and lower right neck. Marked exophthalmos and thyrotoxicosis with cardiac decompensation. X-ray burn of skin.

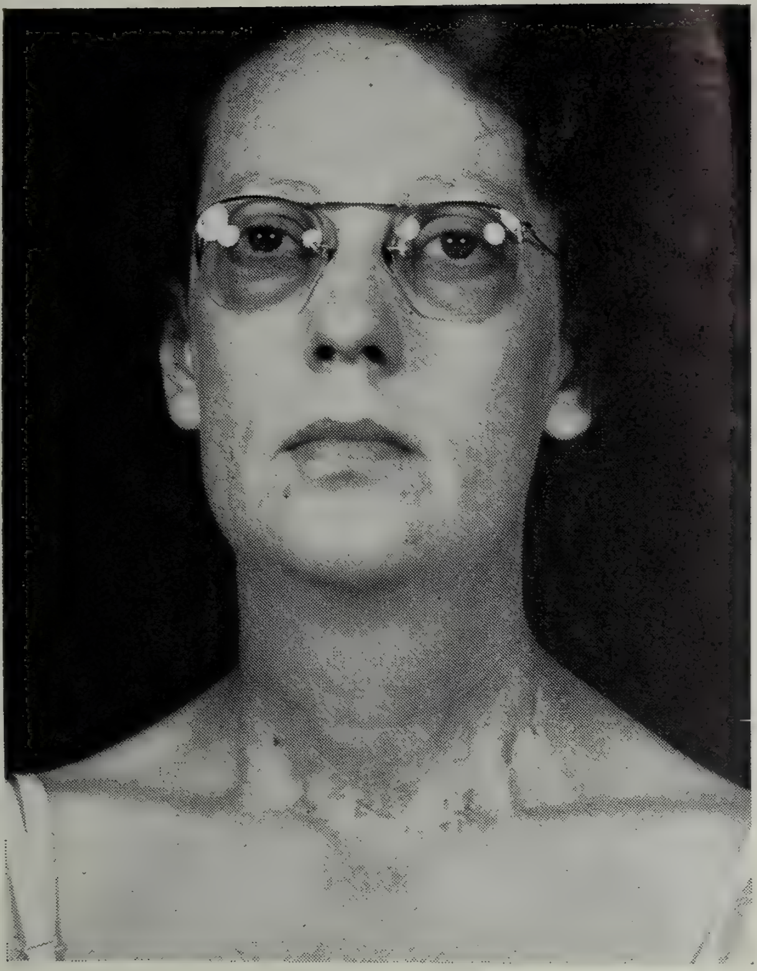


Fig. 2. Mrs. L. H., six weeks postoperatively. Striking clinical improvement. Has returned to work and remained well for seven years. Subsequent plastic operation for removal of radiation burn.

form of treatment has been largely abandoned as a means for permanent cure, but is invaluable in the preoperative preparation of the severely toxic patient for a safe operation. The exception to the previous statement is that there is an occasional patient with a small gland and only mildly toxic who, after continous treatment with the drug for a minimum of a year, will remain in a prolonged or permanent remission.

Next I wish to discuss where radioactive iodine fits into the treatment of this diffuse type of toxic goiter. It is certainly true that atrophy of the hyperplastic thyroid gland can be obtained following one or several administrations of I^{131} but this usually requires a period of between three and six months to reach the euthyroid state. Some of these patients then go on to hypothyroidism or myxedema; however, this should not be regarded as a too serious complication since normal metabolic balance can be restored and maintained by the continuous feeding of thyroid extract in appropriate doses.

As pointed out by Pemberton, Haines and Keating,[2] along with many other investigators, the big question concerns the possibility that untoward consequences of systemic radiation might appear long after the administration of radioactive iodine, resulting in neoplasia in the thyroid, other parenchymatous organs or in bone marrow. In addition, one can not at this time say what may be the effect on the ovaries and testes and what mutations may occur affecting future generations.

Of some interest in connection with the foregoing discussion of radiation danger is the recent report of Simpson, Hempleman and Fuller[3] of the follow-up on 1,400 infants and children treated with relatively small doses of x-radiation for thymic enlargement. The findings are compared with the follow-up in 1,800 siblings not receiving radiation. In the first group at least seventeen children had developed cancers consisting mainly of carcinoma of the thyroid and leukemia, while in the larger non-irradiated group only five cancers had occurred. Perhaps these findings are of some significance.

As the situation now stands, it is the consensus of most well informed internists and surgeons that a properly performed radical subtotal thyroidectomy, carrying a mortality of less than one-half of 1 per cent and with few complications, remains the treatment of choice for diffuse hyperplastic toxic goiter in patients below the age of 50. For individuals older than this is makes little difference whether radioactive iodine or surgery is employed since one is no longer concerned over a possible effect on the reproductive organs, plus the fact that if indeed radiation can produce late cancer, the patient will already have enjoyed a reasonably long life.

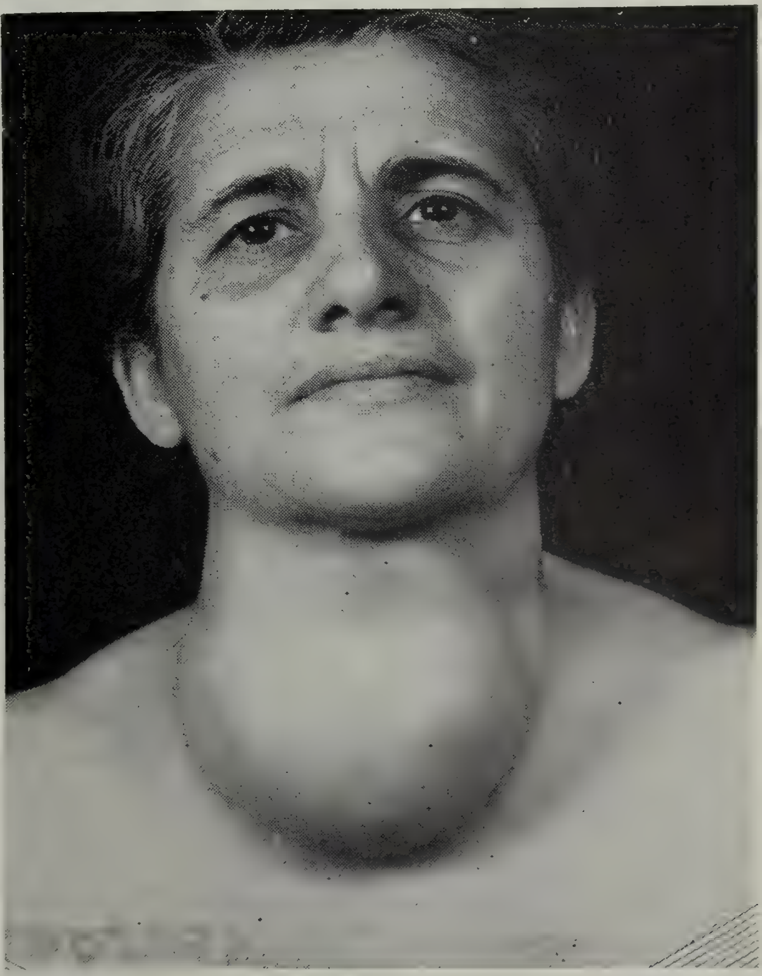


Fig. 3. Mrs. M. G., aged 43. Large nontoxic solitary adenoma was carried for twenty years through fear of operation. Highest incidence of malignant degeneration in this type of nodular goiter.

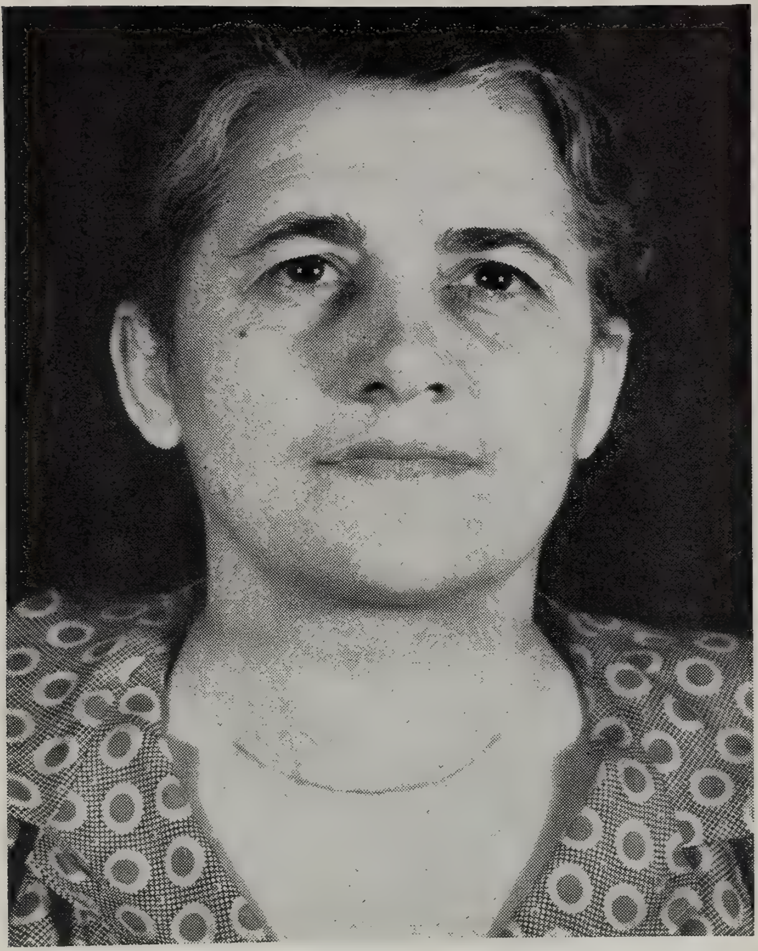


Fig. 4. Mrs. M. G., one month postoperatively. Patient is normal. Good cosmetic result.

Before leaving the subject it should be pointed out that I^{131} therapy should always be employed in the case of the occasional thyrocardiac who fails to attain on drug therapy a sufficiently satisfactory status for safe surgery, the patient who has a recurrence plus hypoparathyroidism following previous thyroidectomy, or a recurrence and coexistent nerve injury, and, finally, the occasional individual who absolutely refuses to have an operation.

Finally, perhaps the most important lesion of the thyroid gland is the nodular goiter, which gains its importance from the fact that it may harm the individual in at least three different ways, namely; by causing thyrotoxicosis, by producing pressure symptoms, such as difficulty in breathing, difficulty in swallowing, and hoarseness, and, finally, by undergoing malignant degeneration.

There are many phases in the field of thyroid disorders about which there is considerable controversy; however, as Morfit and Reimers[4] have pointed out so clearly there are certain facts concerning thyroid cancer about which almost all of the experts are agreed. In the first place, every type of thyroid cancer is capable of killing the patient though the papillary carcinoma, because of its own peculiar biological characteristics, may remain localized for many years before invading the cervical nodes or appearing in the lungs.

Benign tumors can not often be distinguished from malignant ones on the basis of clinical examination, except in the hopelessly far advanced cases in which the surrounding neck structures have been invaded with a resulting fixed, immovable mass. It is true, however, that the history of recent rapid growth, the presence of a paralyzed vocal cord or the appearance of enlarged cervical lymph nodes in conjunction with a mass in the thyroid are strongly suggestive of carcinoma.

All nodules in the thyroid deserve exploration and this statement is supported by the studies of Lahey,[5] Cole,[6] et al, Crile,[7] and many others whose analyses of large series of cases show an incidence of malignant degeneration in nodular goiter ranging from 5.9 to 15.6 per cent, and with the largest proportion occurring in the solitary adenoma. When one considers that most cancers of the thyroid develop in nontoxic goiters and that the thyroidectomy mortality in nontoxic cases is practically zero, the physician who advises a watchful waiting and "do nothing" policy assumes a responsibility which he will find hard to justify. All too often in my own personal experience have I seen the tragic consequence of that unfortunate and misguided statement "don't bother it until it bothers you."

Thyroid cancer can occur at any age from infancy on up, and when a child is found to have a nodule in the thyroid there is considerably better chance of its being malignant than in the case of the adult. Fortunately, the grade of malignancy is apt to be low in the child and so with the proper type of surgery the prospect for long term cure is good.

Radioactive iodine does not remove adenomatous nodules from the thyroid and it can be stated unequivocally that as yet there is no known case of

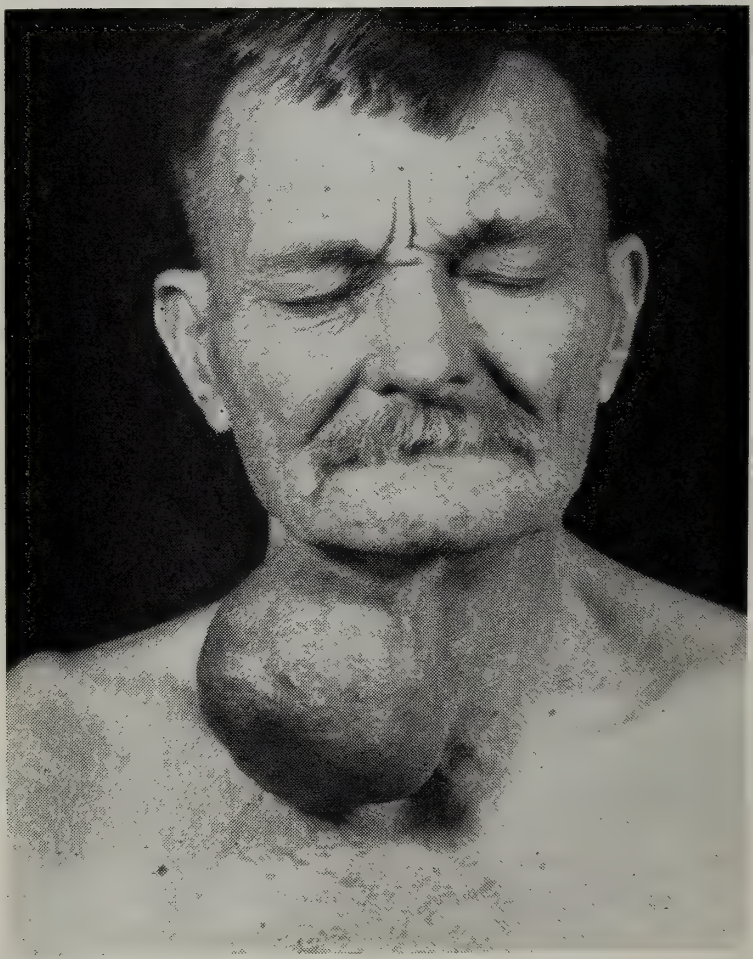


Fig. 5. Mr. C. Z., aged 86, had mass present for many years. He was told by family physicians "Don't bother it until it bothers you." It is now an obvious carcinoma with beginning skin breakdown.

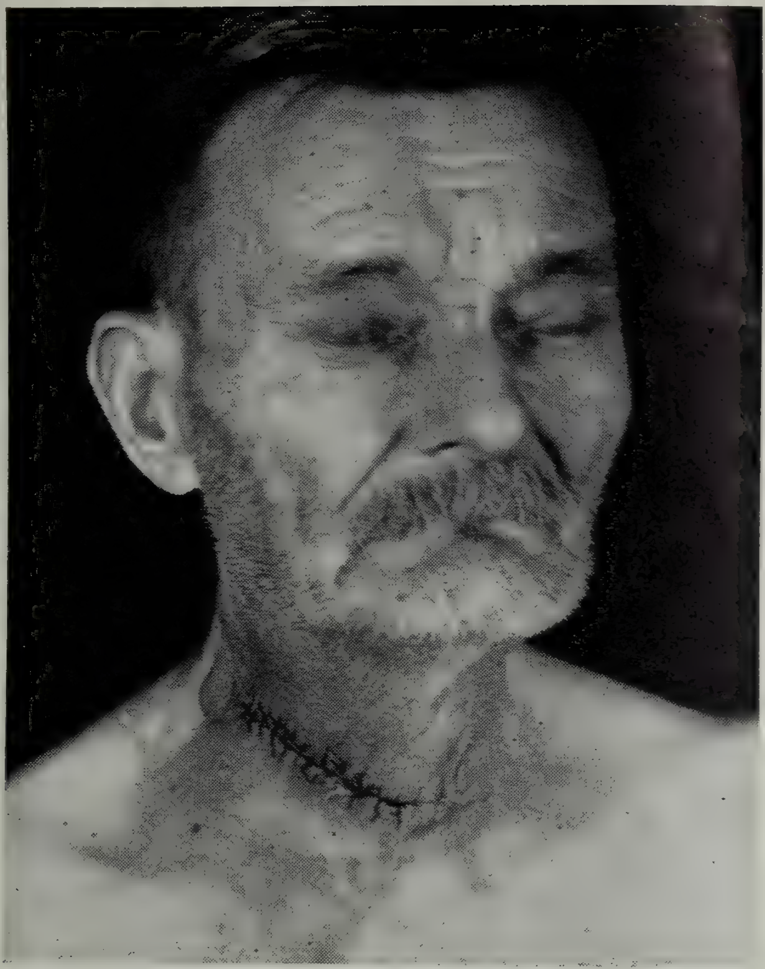


Fig. 6. Mr. C. Z., lived for several years and subsequently died of unrelated causes.

cure of a cancer of the thyroid by this agent though it is helpful from the standpoint of palliation in from 15 to 20 per cent of cases. The unfortunate and disappointing feature of the situation is that despite the fact the primary tumor can be removed frequently by total lobectomy or total thyroidectomy, only when follicular elements are present in the metastases is I^{131} picked up by them. In addition, in the vast majority of cases there will be only a spotty pick up in a given metastasis and many of the other metastases present will not take up any of the isotope at all.

In conclusion, for the well established foregoing reasons thyroidectomy is mandatory in practically all cases of adenomatous nodular goiter and it remains the treatment of choice in diffuse toxic hyperplastic goiter below the age of 50.

100 N. Euclid Ave.

BIBLIOGRAPHY

1. Keating, F. R., Jr.; Haines, S. F.; Power, M. H., and William, M. M. D.: The Radioiodine-accumulation Function Medicine. J. Clin. Endocrinol. **10**:1425-1464 (Nov.) 1950. of the Human Thyroid Gland as a Diagnostic Test in Clinical.

2. Pemberton, J.; Haines, S. F., and Keating, F. R., Jr.: The Current Treatment of Hyperthyroidism, J. Clin. Endocrinol. **9**:1232 (Nov.) 1949.

3. Simpson, C. L.; Hempleman, L. H., and Fuller, L. M.: Neoplasia in Children Treated With X-rays in Infancy for Thymic Enlargement, Radiol. **64**:840, 1955.

4. Morfit, H. M., and Reimers, W. L.: The Emergence of Standardization in the Treatment of Thyroid Cancer, Surgery **40**:1131-1143 (Dec.) 1956.

5. Lahey, F. H. and Hare, H. F.: Malignancy in Adenomas of the Thyroid, J.A.M.A. **145**:689-695, 1951.

6. Majarakis, J. D.; Slaughter, D. P., and Cole, W. H.: Carcinoma of the Thyroid Gland, J. Clin. Endocrinol. **13**:1530-1514, 1953.

7. Crile, G., Jr.: Factors Influencing the Prevention and Cure of Cancer of the Thyroid, Surg., Gynec. & Obst. **91**:210-214, 1950.

Missouri Medicine in Review

(Continued from page 486)

held at the St. Joseph's and Missouri Methodist hospitals in St. Joseph on April 20 and 21. Clinics were held by Dr. Arthur Steindler, Iowa City, professor of orthopedic surgery at the University of Iowa; Dr. Edward J. Stieglitz, Chicago, profesor of medicine at the University of Chicago; Dr. V. S. Counseller, Rochester, Minnesota.

Dr. Augustus G. Pohlman, St. Louis, reseach professor of anatomy in St. Louis University School of Medicine, has been appointed dean of the School of Medicine, of the University of South Dakota at Vermilion. He will also hold the chair of anatomy and be director of the department. Dr. Pohlman will leave St. Louis in June to take up his new duties.

TEN YEARS AGO

Robert Mueller was elected to the position of President-Elect of the Missouri State Medical Association on April 2, 1947, in Kansas City during the 89th Annual session. He will serve in his present capacity until next year when, as it is customary, he will take office as President of the Association.

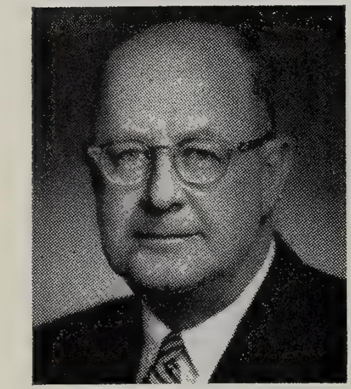
Vilray P. Blair, M.D., St. Louis, was presented with a certificate of merit and a gold medal for scientific accomplishment at a meeting of the St. Louis Medical Society on May 20. John W. Williams, Jr., M.D., Jefferson City, was reelected president of the Southern Branch of the American Public Health Association at a meeting in Memphis, Tenn., on April 23. Cyril A. Post, M.D., Poplar Bluff, spoke at a meeting of the Southeast Missouri Health Service in Poplar Bluff on April 10. Nathan K. Pope, M.D., Springfield, has become a member of the staff of the city health department of Springfield. E. G. Claiborne, M.D., Camdenton, spoke at the March meeting of the Camdenton Parent Teachers Association. John G. Lapp, M.D., Kansas City, was guest of honor at a dinner given by his son, Harry C. Lapp, M.D., Kansas City, on April 15 at the Muehlebach Hotel. The occasion was the fiftieth anniversary of the receipt of medical degrees of Dr. Lapp, Senior, and thirteen others who came from several states for the reunion. R. Emmet Kelly, M.D., St. Louis, was among the first arrivals at the Texas City disaster. He is medical director of the Monsanto Chemical Company whose plant at the Texas City was demolished in the explosion of the Grandcamp.

The Mercer County Medical Society met on May 13 in the office of C. J. Laws, Princeton. Those present were T. S. Duff, M.D., Cainsville; C. J. Laws, M.D., A. S. Bristow, M.D., Robert B. Bristow, M.D., Marion Lambert, M.D., C. P. Pickett, M.D., J. M. Perry, M.D., Princeton. T. S. Duff, M.D., president, presided. The following officers were elected: President, A. S. Bristow, M.D.; vice president, Marion Lambert, M.D.; secretary-treasurer, J. M. Perry, M.D.

Special Article

Are We Keeping Our Own House in Order?

ETHAN A. H. SHEPLEY, *St. Louis*



We have been warned time and again that by winning freedom we do not thereby have it as a permanent possession. In fact, it is much easier lost than gained, and "eternal vigilance" is the price we must be ready to pay if we are to remain free.

But we in America have been so blessed with good fortune throughout the years that we are apt to permit ourselves to be lulled into a false sense of security.

We have heard our Constitution described again and again—not only in Fourth of July speeches but by experts in government and political science—as the most perfect document of its kind ever produced by the brain of man. We are apt to look upon it as a sort of Aladdin's lamp—something that by itself will solve all of our problems and preserve our liberties. In our complex and crowded daily schedules, as we race against the clock to fulfill our business and social obligations, we seldom find time to stop and think about our own good fortune in being Americans. We tend to take our liberties for granted.

But in the words of Judge Florence Allen of the United States Circuit Court of Appeals "We cannot write liberty into a charter and send it out ready made for the next generation." It is high time that we wake up, for the trend of events in recent years should serve to warn us that all is not well and that the things we cherish are in jeopardy.

When we look at the sorry plight in which we find ourselves today throughout the so-called civilized world, we are bound to ask, "How did all of this come about? How is it that at this period of time in which, from the standpoint of material things, man has far more than ever before, he has never had a feeling of greater insecurity?"

Wishful thinking can be as dangerous as it is pleasant.

With our traditional love of liberty and respect for the rights of individual citizens, we in America have nothing but hatred and contempt for the dictators, in whatever forms they may appear and by whatever titles they may be called. And we are quite ready to charge them with sole responsibility for the unhappy state of affairs with which we are now confronted.

We are inclined to claim credit for the good things and to hold others responsible for the bad. If for no reason other than our own protection, however, we would do well to examine the record of events that have taken place during the last forty years for the purpose of placing the responsibility where it belongs and of determining the extent to which our own failures may have contributed to the situation.

That we and the other liberal democracies of the West may have in some way failed is suggested by at least two things. First: During the greater part of this period the people of the world have been suffering from a vicious circle of wars, and there has been virtually no period of time since 1914 in which we have been free from war or the threat of war; and this, notwithstanding the fact that the liberal democracies of the West won both of the world wars that were fought during this period, and wrote the treaties that followed them. Second: The form of government prevailing in the liberal democracies that was regarded as the ideal by every country on the face of the earth prior to the first World War seems to have been losing ground steadily since then to the various totalitarian systems.

How then do we account for these rather surprising things?

Is it possible that some inherent defect in our system of government may be at the bottom of our troubles? Can it be that our system is not so good after all?

Or can it be that we are failing to put into actual practice the system of government that we have adopted in our Constitution?

In his recent book called "Essays in the Public Philosophy" Walter Lippmann has expressed the conviction that the Western democracies have been steadily losing prestige since World War I, and that their governments have failed in their effort to deal with the realities of modern life. He contends that their governments have not been governing but, on the contrary, have merely been attempting to appease the voters, and that with rare exceptions the political leaders in the liberal democracies have been insecure and intimidated men who have learned by experience that it is safer to be wrong until it has become popular to be right.

According to his analysis of the situation, weak

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Presented at the Annual Banquet of the 99th Annual Session of the Missouri State Medical Association, Kansas City, April 2, 1957.

governments were looked upon as the ideal so long as the people were prosperous and happy and there were no hard decisions to be made. During such times our government was premitted to function in accordance with the basic plan of our Constitution but with World War I came the need for hard decisions. The draft, the imposition of heavy taxes, annoying regulations and prohibitions, the rationing of food, gasoline, the protection of the public interest against private interest—all these call for hard decisions. At this point the people undertook to usurp the powers that should properly be exercised by their government.

The whole structure of an executive governing with the consent of a representative assembly was discarded, at least so far as it had to do with issues of vital importance such as the making of war or peace.

The people can consent to being governed, can select those who are to govern, can approve or disapprove their performance and can remove them. But the people themselves cannot govern. The reasons are obvious.

The ability to reach sound conclusions and to make wise decisions on matters of importance requires an accurate knowledge of all material facts, as well as the training and experience needed to form seasoned judgments without undue delay.

These things can hardly be acquired—even by the more intelligent citizen—through the reading of newspaper columns and an occasional book, or by listing to political speeches or lectures on radio, television or the platform.

To a great extent it is neither possible nor advisable to make a full disclosure of all the facts to the people generally, and this is especially true on the most important issues which may involve the preparation for war or the making of a treaty.

Nevertheless, the voters have insisted upon substituting mass opinion for the judgment of well informed and capable public officials. "The people have acquired power which they are incapable of exercising, and the governments they elect have lost powers they must recover if they are to govern." The people could not be aroused in either of the world wars or in the period between them to the exertion and sacrifices that would be required until they were frightened by early disasters or until their hatred had been sufficiently aroused, or they had become intoxicated by promises of Utopia.

Havē we forgotten that we fought World War I to make the world safe for democracy? It was a war to end all wars and yet, because of the extent of the hatred that had been built up in the people and their insistence upon a vindictive treaty, a second world war was almost guaranteed by the terms that were imposed upon the vanquished.

The leaders of these democracies recognized Mr. Hitler for what he was when he came into power and openly threatened to conquer Europe, but they were wholly unable to take effective action at the time when it was needed. The veto of mass opinion said no.

To labor the point further should be unnecessary for it seems abundantly clear that our government is being stripped of the power to govern, and that power is being usurped by those who are totally incapable of exercising it.

As far back as 1930 James Truslow Adams has called attention to this situation and I quote: "As we look over the list of the early leaders of the Republic, Washington, John Adams, Hamilton and others, we discern that they were all men who insisted upon being themselves and who refused to truckle to the people. With each succeeding generation, the growing demand of the people that its elective officials shall not lead but merely register the popular will has steadily undermined the independence of those who derive their power from popular election."

The soverign people would do well to analyze and criticise themselves with the same freedom they display in appraising the conduct of those whom they elect. As so well stated by Mr. Lippmann, "It will not do to think poorly of the politicians and to talk with bated breath about the voters. No more than the kings before them should the people be hedged with divinity. Like all princes and rulers, like all sovereigns, they are ill served by flattery and adulation. And they are betrayed by the servile hypocrisy which tells them that what is true and what is false, what is right and what is wrong, can be determined by their votes."

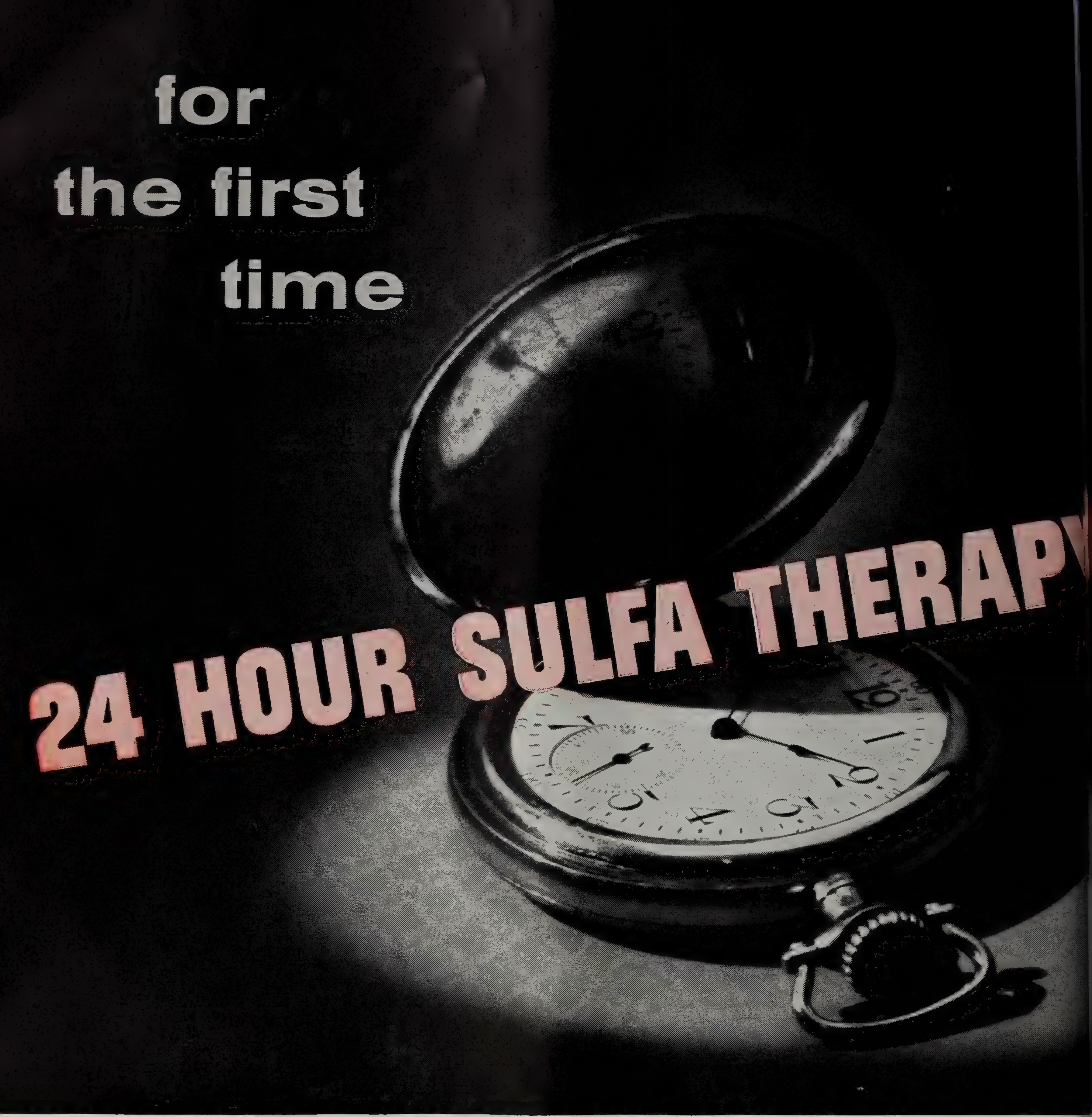
No, the trouble is not with our Constitution but rather with our failure to understand and follow it. Our system is too often thought of as nothing more than majority rule. But majority rule is tyranny, pure and simple—and tyranny has no place in our system. We are a constitutional democracy, in which the rule of the majority is tempered by justice—and our liberties are secured by our constitutionalism rather than by democracy. But we appear to have forgot these fundamental and all important principles.

It seems that the people, with a complete disregard of the Constitution, are doing things it does not permit. And to make bad matters worse we are failing to do the one thing for which the Constitution does hold us responsible.

Responsibilities as well as rights and powers are rather clearly assigned by the Constitution.

The executive shall govern, but only within the limits permitted by the Constitution and to the extent to which the people through their representative assembly shall give their consent.

And the people, acting through those of their number who shall from time to time be entrusted with the power to vote, shall choose the executive



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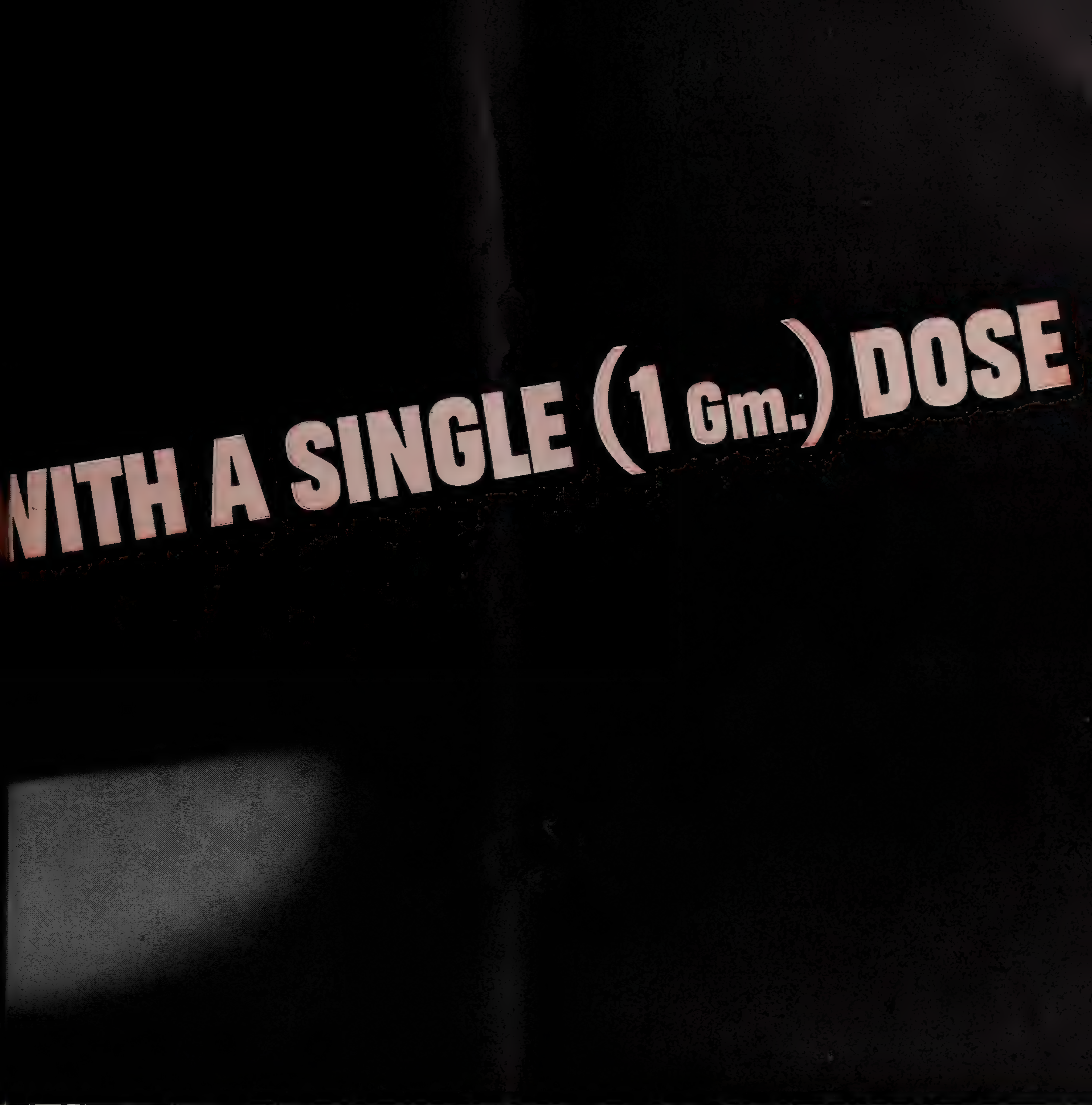

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Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 Tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

1. Boger, W. P.; Strickland, C. S.; and Gylfe, J. M.: Antibiot. Med. & Clin. Ther. 3:378 (Nov.) 1956.

KYNEX*

SULFAMETHOXYPYRIDAZINE LEDERLE

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as well as the members of their representative assembly.

To what extent are the qualified voters actually performing this function?

If you will take the pains to read a book written some years ago by Mr. Frank Kent, called "The Great Game of Politics," you will be convinced that with some few minor exceptions they are not.

In the words of President Kirk of Columbia University, "Most individuals in a free society are prone to think too much about rights and too little about responsibilities."

It seems clear that those of us who are accorded the franchise are acting as trustees for the people as a whole as well as for themselves individually and that the right to vote is not merely a right but, on the contrary, is a privilege carrying with it an important responsibility.

When John Doe goes to the polling place on election day, he is acting not simply for John Doe but as a representative of the people as a whole. When he fails to go he is not merely failing to exercise a right, but he is also defaulting in the performance of his obligation to the people. Would that it were feasible to deprive the defaulting voter of his right to vote!

Mr. Kent in his book makes it abundantly clear that the voters are not in fact selecting the persons who are to fill the elective offices.

For the most part they take little or no interest until the day of the general election by which time it has become a case of too little and too late. Their right to select has now shrunk to the mere privilege of choosing between the candidates that have been hand picked by the political organizations of the two major parties. They have no one but themselves to blame for their predicament, as it has been brought about by their own failure.

The real decisions were made at the time of the primary elections, and a glance at the records in this country will disclose the fact that at the primaries a surprisingly small percentage of the qualified voters take the pains to go to the polls.

And so, by default, the professional politician is permitted to perform a function that was never intended to be his. While of course there are exceptions, as a general rule the professional politicians are not unselfish, public spirited citizens who seek to serve the welfare of the nation. To them politics is a business and they are in it as other people are in business—for what they can get out of it.

This being true, we can hardly expect the political organizations to nominate for public office the kind of men and women who are needed to make the hard decisions that must be made. They select people whom they hope to control, and in those all too rare instances where a real leader with the courage of his own convictions is accepted by the political organizations, you can be very sure that he was forced upon them by the pressure of the circumstances.

And so it would seem that this system of government of ours has broken down rather badly, not because of any defects in the Constitution or in the system itself, but because the people are doing things they have neither the right nor the capacity to do, and are failing to perform the all important function that is assigned to them by the Constitution.

History seems to indicate that sooner or later people will insist upon a strong government, even at the expense of some of their liberties and the danger is that the liberal democracies will wind up with some type of totalitarian control. There must be developed in the people a readiness to recognize that the interest of society as a whole must be served and protected by government, and that the people and the minority groups into which they divide themselves must be prepared to accept this as the responsibility of their government, irrespective of the effect its decisions may have upon the interests of the individual or the group.

It is pretty difficult to convince the individual citizen that his vote is important—that his participation is really worth the effort. So he "Lets George do it"—and the trouble is that "George" does not do it. It seems that "George" expects some other "George" to do it.

And so in most instances the persons elected to office are not those best qualified to do the job and are not truly representative of their constituents. And Mrs. Citizen, still overwhelmed by his feeling of impotence, looks to his particular "pressure group" to protect his interests from impairment or neglect at the hands of these representatives whom he did not select and whom he does not trust.

And then we have a government by tug-of-war, push and pull, threats and promises, operating to a great extent upon the disastrous philosophy that "might makes right." Under such conditions we must not be surprised if those who are to make the decisions—if they are to avoid political suicide—must look to what is popular rather than to what is right.

The only solution to this problem must come through the proper education of our people. The successful operation of a liberal democracy requires a certain amount of collective unselfishness, a willingness to accept—even insist upon—a strong government—one that will not hesitate to make hard decisions no matter how unpopular they may be. And this ideal will never be attained unless and until the people generally come to understand that our Constitution is not an Aladdin's lamp and that the system it prescribes must be practiced as well as preached.

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- continuous control of edema

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In extensive clinical studies the diuretic response clearly indicates that a majority of patients can be kept edema-free with Rolicton. In these investigations it was noted that side reactions were uncommon. When they did occur they were usually mild.

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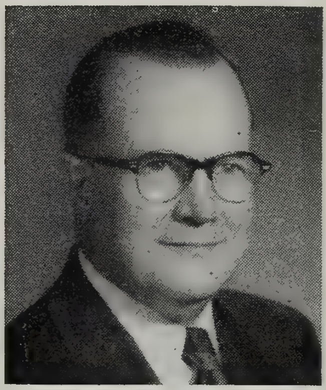
One tablet of Rolicton b.i.d., after meals, is usually adequate for maintenance therapy after the first day's dosage of four tablets. Some patients respond well to one tablet daily. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

SEARLE

President's Page

The 1957 House of Delegates of the Association adopted the following resolution:

Whereas, The present income tax law of the United States is unfair to self-employed persons, including a majority of practicing physicians, in that it does not give to them the measure of tax relief it accords to corporations and to employees in the important matter of deferring taxation of reasonable amounts of current income paid into retirement programs, and



Whereas, Bills have been introduced into the House of Representatives by Representatives Jenkins and Keogh to correct this manifest inequity, and

Whereas, The members of the Missouri State Medical Association and those who will enter the profession have a direct and important interest in tax relief to help them in setting aside funds for living expenses in retirement, now therefore be it

Resolved, That this House of Delegates go on record as advocating the passage of such equitable legislation, and be it further

Resolved, That a copy of this resolution be sent to each Missouri member of the Senate and the House of Representatives, and be it further

Resolved, That the individual members of the Missouri State Medical Association be urged to bring to the attention of our members of Congress by letter and every possible personal contact the need for such legislation and its simple fairness to self-employed Americans.

Doctor, have you written your Congressmen? They are: District 1, Frank M. Karsten; District 2, Thomas B. Curtis; District 3, Mrs. John B. Sullivan; District 4, George H. Christopher; District 5, Richard Bolling; District 6, W. R. Hull; District 7, Charles H. Brown; District 8, A. S. J. Carnahan; District 9, Clarence Cannon; District 10, Paul C. Jones; District 11, Morgan M. Moulder. All should be addressed, House Office Building, Washington, D. C.

Walter S Sewell M D

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in Arthritis, Asthma, Allergic Dermatoses

with **lower corticoid dosage**

the original tranquilizer-corticoid

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prednisolone and hydroxyzine

provides the emotional tranquilizer, ATARAX® (hydroxyzine) and the preferred corticoid, STERANE® (prednisolone) • control of emotional factors by tranquilization enhances response to the corticoid for greater clinical improvement • often permits substantial reductions in corticoid dosage, accompanied by reduction of hormonal side effects • confirmed by marked success in 95% of 1095 cases of varied corticoid indications[1]

ATARAXOID *now written as* **Ataraxoid 5.0**

5 mg. prednisolone, 10 mg. hydroxyzine hydrochloride, in green, scored tablets. Bottles of 30 and 100.

and now available as **NEW** **Ataraxoid 2.5**

2.5 mg. prednisolone, 10 mg. hydroxyzine hydrochloride, in blue, scored tablets. Bottles of 30 and 100.

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1.0 mg. prednisolone, 10 mg. hydroxyzine hydrochloride, in orchid, scored tablets. Bottles of 100.

formerly **Ataraxoid**
NOW written **Ataraxoid 5.0**

advantages: (1) greater flexibility of dosage (2) effective tranquilization permits lower corticoid dosage

[1] Personal communications

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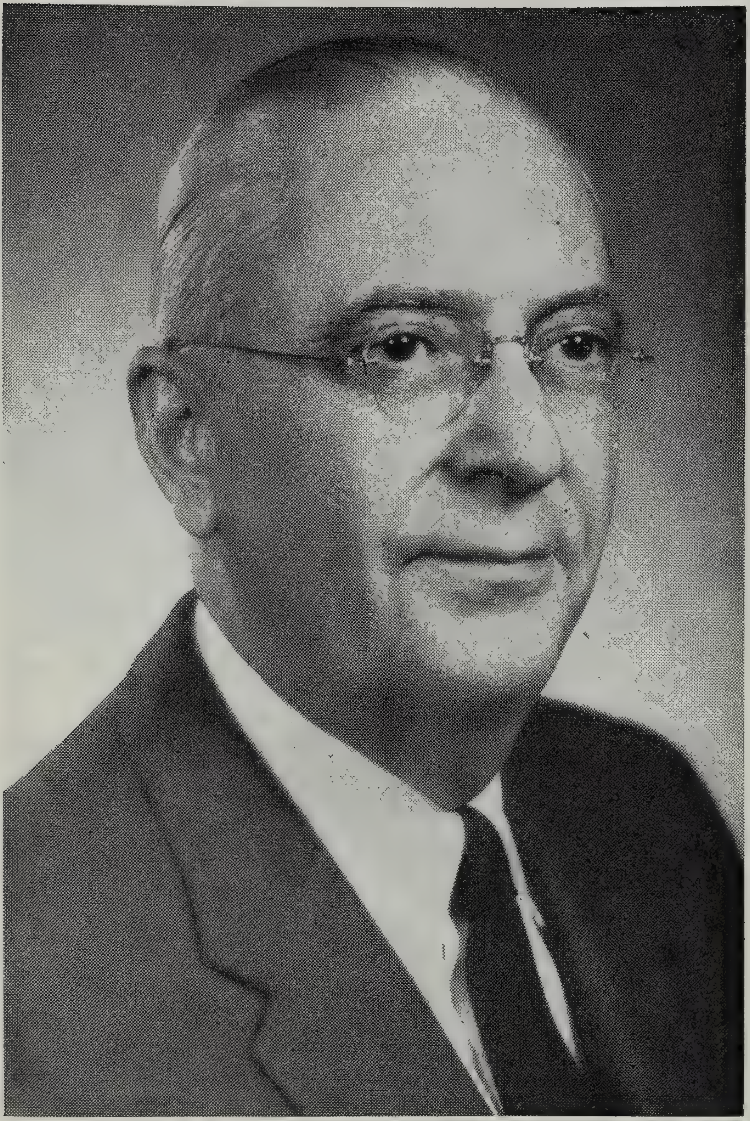
EDITORIALS

W. F. Francka, M.D., President-Elect

W. F. Francka, M.D., Hannibal, was elected President-Elect of the Missouri State Medical Association at the 99th Annual Session held in Kansas City, March 31, April 1, 2 and 3, 1957. He will serve as President-Elect until the next Annual Session at which time he will be installed as President.



Dr. Francka was born in Verone, Missouri, September 10, 1900. He received his primary education in the public schools in Bolivar, his secondary education at St. Procopius Academy, Lisle, Illinois. His premedical education was received in St. Louis University and his M.D. degree, St. Louis University School of Medicine in 1924. He interned at St. Mary's Hospital, St. Louis.

Dr. Francka's specialty is surgery. He has practiced in Hannibal since the completion of his residency. He has been chief of staff of St. Elizabeth's Hospital in Hannibal for the last eighteen years.

Becoming a member of organized medicine early in his practice, he was president of the Marion-Ralls-Shelby County Medical Society in 1929, having served as secretary and treasurer in 1927. He served as delegate to the House of Delegates in 1933 and from 1937 to 1945, being Speaker of the House of Delegates from 1942 to 1945. In 1945 he became Councilor of the Second Councilor District and served as Chairman of the Council during 1956.

As was said in the speech nominating Dr. Francka, "He is deeply and sincerely interested in community and religious life, and is dedicated to the service of the medical profession."

Dr. Francka is married and has two daughters.

Other officers are Walter S. Sewell, M.D., Springfield, President, who served as President-Elect during the last year; M. Pinson Neal, M.D., Columbia, Paul R. Whitener, M.D., Florissant, and Joseph G. Webster, M.D., Kansas City, Vice Presidents; F. L. Feierabend, M.D., Kansas City, and Joseph C. Peden, M.D., St. Louis, Delegates to the American Medical Association with Rolla B. Wray, M.D., Nevada, and Dean Sauer, M.D., St. Louis, alternates; Joseph L. Fisher, M.D., St. Joseph, Speaker of the House of Delegates, and Oscar P. Hampton, Jr., M.D., St. Louis, Vice Speaker; E. Royse Bohrer, M.D., Jefferson City, Secretary, and Jerome I. Simon, M.D., St. Louis, Treasurer.

R. O. Muether, M.D., St. Louis, was elected Chairman of the Council, and J. H. Summers, M.D., Lebanon, Vice Chairman. Councilors from the even numbered districts, whose terms expired at the 1957 Annual Session, and the Fifth District which was an unexpired term, were elected with B. L. Murphy, M.D., Hannibal, elected from the Second District; Joseph C. Creech, M.D., Troy, reelected from the Fourth District; C. G. Stauffacher, M.D., Sedalia, reelected from the Sixth District; W. W. Tillman, M.D., Springfield, elected from the Eighth District and Ben M. Bull, M.D., reelected from the Tenth District.

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mild sedation
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Musings of the Field Secretary

Plans for the five "School Health Workshops," to be held during June, 1957, at the five state colleges in Missouri, are moving rapidly to completion. These workshops will occur as follow: June 10, 11 and 12 (noon to noon), Central Missouri State College, Warrensburg; June 12, 13 and 14 (noon to noon), Northeast Missouri State College, Kirksville; June 17 and 18, Northwest Missouri State College, Maryville; June 20 and 21, Southwest Missouri State College, Springfield, and June 25 and 26, Southeast Missouri State College, Cape Girardeau.

The purpose of these workshops is to help teachers, nurses, administrators, nutritionists, workers in governmental and voluntary health agencies, private physicians, dentists, parents and other persons responsible, play more effective and realistic roles in meeting the health needs of their schools.

Just what do teachers, nurses, administrators and other persons interested in health learn at a School Health Workshop? They gain: New ways of solving troublesome situations; new technics of enlisting the interest and help of parents, townspeople and school board members; more about the basic fundamentals that are necessary for a child to become physically, mentally and emotionally strong, and new inspiration for teaching and leading the total child on the right road to good health.

The theme of the workshop at Springfield will be "Mental Hygiene for School Children"; at Kirksville, "Healthy School Environment—a Luxury or a Necessity," and at Cape Girardeau, "Health Education in Action."

These workshops function primarily through group discussion technic. Those in attendance select a group which has chosen to explore a particular problem relating to the theme of the workshop. The groups are informal in their deliberations and each individual is urged to contribute his or her thinking to the discussions. There are also guest speakers who address general sessions of the entire workshop. At the final session of each workshop, summaries are given.

Experience clearly shows that School Health Workshops need the participation of physicians on their general programs and particularly in the group discussions. The knowledge and experience a doctor can bring into these workshop deliberations is invaluable. The Infant and Child Care Committee of the State Medical Association is hopeful that local physicians will attend these workshops when and where ever possible.

The Bureau of Health Education of the A.M.A. for sometime has been cooperating in the various states in which School Health Workshops have been held. Representatives of the Bureau have participated in a number of the Missouri Workshops during the last five years. A.M.A. Bureau of Health Education personnel who will appear on workshop programs in Missouri this June are: Dr. Wallace Wesley, Hs.D., at Kirksville and Maryville; Dr. D. A. Dukelow, M.D., at Cape Girardeau, and Dr. Wm. Bolton, M.D., at Springfield. These people contribute an immeasurable amount of stimulation, desirable health information and basic philosophy.

Missouri Medical Meetings

Missouri State Medical Association Annual Session, St. Louis, April 13-16, 1958.
Kansas City Southwest Clinical Society, Conference, Sept. 30-Oct. 3, 1957, Kansas City.
Missouri Academy of General Practice, Annual Meeting, Governor Hotel, Jefferson City, October 30-31, 1957.
St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Society—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—third Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—fourth Tuesday of each month except June, July and August, at auditorium of General Hospital No. 1.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets only on call.
Johnson County Medical Society—meets only on call.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark-Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Webster County Medical Society—meets only on call.
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

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SAINT LOUIS
KANSAS CITY

News

In a recent election, **F. A. Barnett**, M.D., Paris, was elected mayor of that city.

Among speakers at the Mid-West Conference of Medical Record Librarians in Kansas City on April 25 were **David Littauer,** M.D., St. Louis, and **H. M. Hardwicke**, M.D., Jefferson City.

At the annual convention of the American College of Allergists in Chicago on March 21, **Orval R. Withers,** M.D., Kansas City, was installed as president.

New officers of Research Hospital, Kansas City, installed April 9 are **E. Kip Robinson,** M.D., president; **Milton C. Peterson,** M.D., president-elect; **Russell D. Shelden**, M.D., secretary, and **Robert S. Long**, M.D., treasurer.

The Southern Medical Association plans a new building to be completed during 1957, and serving on the Home Building Finance Committee of the Association is **Alphonse McMahon**, M.D., St. Louis.

New president of the Sedalia Rotary Club is **C. G. Stauffacher,** M.D., Sedalia.

The Silver Antelope, the highest regional award the Boy Scout organization can bestow on adult volunteer leaders, has been presented **Durward G. Hall**, M.D., Springfield.

A reception honoring **W. R. Patterson**, M.D., Warrensburg, was held at Warrensburg on March 31, at which a portrait of Dr. Patterson was presented. The *Warrensburg Standard-Herald* carried a story of Dr. Patterson's life.

A recent speaker before the Central PTA of West Plains was **C. F. Callihan**, M.D., West Plains.

The Fifth District Missouri Nurses Association were addressed recently at Carthage by **Richard R. Cohle**, M.D., Carthage, who spoke on "Leprosy."

The Business and Professional Women's Club of Mexico had **Edward S. Wallace**, M.D., Mexico, as their speaker at a meeting in April.

At a meeting of the Missouri Occupational Therapy Association at St. Luke's Hospital, St. Louis, on April 11, **Paul O. Hagemann,** M.D., St. Louis, spoke on "Living With the Rheumatic Patient."

The *Wellsville Optic-News* carried a story on the life of **Albert Hirsch**, M.D., Middletown, and told of his receiving the 50 Year Emblem of the Association.

The history of medicine was told by **C. E. Buehrer,** M.D., Lawson, at a Rotary Club meeting in Excelsior Springs, early in April.

The Newcomers of the Fortnightly Club, Columbia, heard **Helen E. Y. Thomas**, M.D., discuss "A Pediatrician Talks on Child Care" at a meeting on April 9.

An award for community service was made recently to **Leslie C. Randall**, M.D., Licking, by the Chamber of Commerce.

Speaker at a meeting of the Butler Rotary Club in April was **A. L. Hansen**, M.D., Butler.

Speaker at a meeting of the Business and Professional Women's Club of West Plains in March was **Rollin H. Smith**, M.D., West Plains.

Second speaker in a series of counseling clinics on marriage held in Savannah was **Gilbert B. Kelley**, M.D., Savannah.

Speaker at a meeting of Licensed Practical Nurses of the Columbia District at Columbia in March was **Samuel P. W. Black**, M.D., Columbia.

"Fundamentals of Blood Clotting and Their Application to Medicine" was the subject of a talk by **Joseph E. Flynn**, M.D., Columbia, at a program given by Sigma Xi.

The Rotary Club of Sikeston had as speaker at a meeting in March **Thelma Buckthorpe**, M.D., Sikeston.

Speaker at a meeting of the Methodist Men of Centenary Church, Cape Girardeau, in March was **O. L. Seabaugh**, M.D., Cape Girardeau.

A bronze medallion has been presented to **Edwin H. Schorer**, M.D., Kansas City, by Johns Hopkins University, on the occasion of his becoming a fifty year alumnus of the University.

The Optimist Club of Kansas City has elected **Harrison C. Trippe**, M.D., Kansas City, vice president.

Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met April 11 at the Strand Hotel, Chillicothe. The attendance was excellent considering the weather conditions. After the dinner, the guests were introduced, and the Auxiliary retired to their meeting.

The scientific program was presented by Hugh E. Stephenson, Jr., M.D., Head of the Department of Surgery, University of Missouri Medical School, Columbia, who discussed "Cardiac Arrest." This was a scientific and interesting paper and was followed by questions and discussion.

There being no further business, the Society adjourned.

E. A. DUFFY, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

B. L. MURPHY, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

The Chariton-Macon-Monroe-Randolph County Medical Society held a dinner at the Woodland Hospital, Moberly, April 11.

Following dinner, the guest speaker, Walter J. Burdette, M.D., Clinical Professor of Surgery, St. Louis University Medical School, gave an interesting talk on "The Management of Breast Cancer." Dr. Burdette discussed the results and limitations of present day methods of treatment of breast cancer and stated that the time tested radical mastectomy followed by deep x-ray therapy still remains the treatment of choice for most cases of breast cancer.

Physicians present were: Drs. F. L. Harms and G. W. Hawkins, Salisbury; D. D. Stuart, Brunswick; P. V. Dreyer, Huntsville; F. A. Barnett, Paris; J. W. Gardner, Glasgow; J. E. Campbell, Macon; Josephine Baker, W. D. Chute, C. C. Cohrs, J. Will Fleming, Robert Hasson, L. E. Huber, A. P. Rowlette, C. C. Smith, Robert H. Young and S. R. Szymanski, Moberly.

ROBERT H. YOUNG, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Lincoln-St. Charles County Medical Society

The Lincoln-St. Charles County Medical Society met on Thursday, April 18, at the Southern Air, Wentzville.

After a social hour and dinner, the film, "The Medical Witness," was shown, and this was followed by a skit of actual courtroom testimony provided by three lawyers and one physician. The entire program was enjoyable, and there were approximately twenty-five lawyers and fifteen physicians in attendance.

With the exception of the program participants, the lawyers were from St. Charles, Lincoln, Pike and Warren counties, and the physicians in attendance were all from St. Charles and Lincoln County.

PAUL H. ROTHER, M.D., *Secretary*

Jefferson County Medical Society

A called meeting of the Jefferson County Medical Society was held Friday night, April 19, in the Health Center Building, Hillsboro. The meeting was called to order at 8:30 p.m. by the president, Dr. Karl McKinstry.

The meeting was held at the Health Center.

An interesting and instructive talk on "The Care of Chest Injuries" was given by Dr. Joseph Lucido, St. Louis.

Dr. Roger Allbee, who has retired from the army medical corps and is located in Crystal City, was elected to membership in the Society.

Members present were: Drs. Karl McKinstry, Charles E. Fallet, E. J. Senn, Bertalan Bolgar, Carl Rice, Frank Kozal, J. L. Mayfield, Roger Allbee, R. H. Donnell and John F. Rutledge.

JOHN F. RUTLEDGE, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held a joint dinner meeting with the Callaway and Montgomery County Medical Societies, Monday night, April 15, in the dining room of the Audrain Hospital, Mexico. The meeting was called to order by the president, Dr. Harry F. O'Brien.

Dr. O'Brien then introduced the guest speaker, Dr. Paul Murphy, St. Louis, who spoke on "The Changing Picture of Pulmonary Disease Problems."

The following doctors were present: Drs. Thomas Dwyer, Leonard Davis, Kathryn Epple, Lawrence Epple, Harold D. Lankford, Harry F. O'Brien, Charles Garcia, Glen Kallenbach, Ernest Gantt and Ed Wallace, Mexico, and Drs. Hobbs, Freund and Monosson of the State Hospital, Fulton.

As there was no further business, the meeting adjourned at 9:30 p.m.

Lawrence K. Epple, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

A meeting of the West Central Missouri Medical Society and the Woman's Auxiliary was held at the Harrisonville Hotel, Harrisonville, Thursday night, April 11.

Dinner preceded the meeting.

The evening festivities began with a social hour followed by dinner and then the program.

Dr. Norman Makous, Kansas City, presented an interesting and informative discussion on "Electrocardiography and its Practical Applications."

Robert L. Magee, M.D., *Secretary*

Henry, Johnson, Pettis, Saline and Adjacent County Medical Societies

Doctors and their wives from the Henry, Johnson, Pettis, Saline and adjacent County Medical Societies held a joint dinner meeting at the Whiteman Air Force Base, Sedalia, Wednesday night, April 17. This gala affair was held in the Officers' Club by invitation of the staff of the 340th Tactical Hospital of the Air Force Base. Eighty-five were in attendance.

A joint meeting of several societies was held at the Base.

At 5:00 p.m. the doctors and their wives were conducted on a special tour of the air base and flight line which included going through some of the aircraft. At 6:30 p.m. a social hour was held in the Officers' Club followed by dinner at 7:30 p.m.

The scientific program of the evening, presented to the doctors, was given at the base hospital by William Kitchen, M.D., radiologist of Kansas City, Missouri. Dr. Kitchen gave an interesting and informative discussion on "The Elusive Polyp." At the time of the scientific program, the doctors' wives attended a special program prepared for them at the Officers' Club.

Following the special programs some of the guests took a tour through the base hospital while others returned to the Officers' Club for more socializing.

The scientific program was sponsored by the Missouri Academy of General Practice and those physicians in attendance who are members of the Academy are entitled to Category I PG Credit.

From the number in attendance and from the many complimentary remarks concerning the entire evening's festivities, one is fairly safe in saying that this was an outstanding occasion.

C. G. Stauffacher, M.D., *Councilor*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

A dinner meeting of the Mid-Missouri Medical Society and the doctors' wives was held at the Yellow Jacket Cafe, Lebanon, April 25.

The following physicians and their wives were present: Dr. and Mrs. J. H. Summers, Dr. and Mrs. B. B. Hurst, Dr. and Mrs. H. W. Carrington, Dr. and Mrs. G. R. Weeks, Dr. G. E. Fisher, Dr. and Mrs. R. W. Froelich, Lebanon; Dr. and Mrs. Bonnie and Dr. and Mrs. E. A. Stricker, St. James; Dr. and Mrs. B. J. Bass, Salem; Dr. and Mrs. M. K. Underwood, Dr. J. Myers, and Dr. and Mrs. W. R. Lytle, Rolla.

The scientific program was given by Dr. W. E. Wooldridge of Springfield, Missouri, who spoke on "Treatment of Lip and Skin Cancer With Combined X-ray and Radium Therapy."

Dr. Wooldridge's paper demonstrated the unusual value of combined x-ray and radium therapy in cancers of the lip, face and neck. His beautiful kodachrome slides gave excellent illustrations of the many lesions treated by this modern method.

Following the turkey dinner and the scientific paper, the members continued to ask many questions in regard to the combined method of treating malignant lesions.

M. K. Underwood, M.D., *Secretary*

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner, Wednesday night, April 24, at the Arcade Hotel in West Plains with the following members and visitors present: Dr. and Mrs. R. W. Denney, and Dr. A. C. Ames, Mountain Grove; Dr. and Mrs. R. H. Smith, Dr. and Mrs. M. L. Fowler, Dr. and Mrs. J. N. Wiles, Dr.

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C. F. Callihan, and Mrs. E. C. Bohrer, West Plains; Dr. and Mrs. M. B. Perkins and Dr. H. W. Miller, Willow Springs; Dr. D. E. Tiffany, Mountain View; Dr. C. W. Cooper, Thayer; Dr. A. T. Walker, Mammoth Springs, Arkansas, and Dr. F. T. H'Doubler and Dr. M. D. Bonebrake, Springfield.

After dinner, Mr. Harper, the county agent of Howell County, showed the A.M.A. film, "The Doubting Doctor," which was appreciated. The ladies then went home with Mrs. Wiles for the evening.

Dr. A. T. Walker, the president, called the meeting to order and turned it over to the speakers, Drs. H'Doubler and Bonebrake, who spoke on "Radio-Active Iodine and Gold and Their Use in Diagnosis and Treatment of Thyroid Disease and Uterine Cancer." The speakers brought out a number of facts not generally well known.

The minutes of the last meeting were read and approved.

An invitation was extended from the Memorial Hospital at Mountain View for the members of the Society to use their facilities.

The meeting then adjourned to meet in Willow Springs, May 22.

A. C. AMES, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Mineral Area County Medical Society

Dr. Richard Yore, St. Louis, spoke before the Mineral Area County Medical Society on May 2 at the Clinic Building, State Hospital, Farmington.

Dr. Yore discussed "The Management of Injuries to the Chest." His appearance on this program was sponsored by the MAGP.

R. A. HUCKSTEP, M.D., *Secretary*

NEW MEMBERS

Altringer, Mary P., M.D., 5630 Mission Drive, Kansas City. Jackson County Medical Society.

Barnes, Robert H., M.D., 6410 West 75th Street, Overland Park, Kansas. Jackson County Medical Society.

Berry, Guy Neill, M.D., 648 West 59th Street, Kansas City. Jackson County Medical Society.

Bonfanti, Albert L., M.D., 1325 South Grand Boulevard, St. Louis. St. Louis Medical Society.

Carlson, Arne E., M.D., 915 North Grand Boulevard, St. Louis. St. Louis Medical Society.

Field, Lawrence M., M.D., 4425 Chestnut, Kansas City. Jackson County Medical Society.

Fritzlen, Thomas J., M.D., 838 West 52nd Street, Kansas City. Jackson County Medical Society.

Hess, A. Michael, M.D., 915 North Grand Boulevard, St. Louis, St. Louis Medical Society.

Huck, Richard F., M.D., 429 Missouri Theatre Building, St. Louis. St. Louis Medical Society.

Love, Robert W., Jr., M.D., 6026 Rockhill Road, Kansas City. Jackson County Medical Society.

Luh, Andrew, M.D., 505 Humboldt Medical Building, St. Louis. St. Louis Medical Society.

Ryder, Gilbert E., M.D., 427 Greenway Terrace, Kansas City. Jackson County Medical Society.

DEATHS

Gerwitz, Bernard W., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1930; member of the St. Louis Medical Society; aged 54; died January 29.

Taylor, Herbert I., M.D., Jefferson City, a graduate of St. Louis University School of Medicine, 1913; honor member of the Cole County Medical Society; aged 77; died March 11.

Spencer, Selden, M.D., St. Louis, a graduate of Missouri Medical College, 1899; honor member of St. Louis Medical Society; aged 84; died March 25.

Slusher, Ernest W., M.D., Kansas City, a graduate of Washington University School of Medicine, 1897; honor member of Jackson County Medical Society; aged 82; died March 29.

Kenamore, Bruce, M.D., St. Louis, a graduate of Washington University School of Medicine, 1935; member of the St. Louis Medical Society; aged 47; died April 1.

Smith, Andrew J., M.D., St. Joseph, a graduate of the Ensworth Medical College, 1910; honor member of the Buchanan County Medical Society; aged 72; died April 1.

Twyman, Elmer D., M.D., Kansas City, a graduate of Northwestern University School of Medicine, 1907; honor member of the Jackson County Medical Society; aged 73; died April 6.

Petersen, Fenton J., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1928; member of the St. Louis County Medical Society; aged 55; died April 13.

Craig, Arthur D., M.D., Springfield, a graduate of St. Louis College of Physicians and Surgeons, 1896; honor member of Greene County Medical Society; aged 88; died April 15.

Sellers, Charles J., M.D., Mount Moriah, a graduate of the American Medical College, 1895; honor member of the Grand River Medical Society; aged 86; died April 14.

Burke, Walter H., M.D., Springfield, a graduate of Washington University School of Medicine, 1926; member of the Greene County Medical Society; aged 57; died April 16.

Lewis, William E., M.D., Kansas City, a graduate of Central Medical College, 1898; honor member of Jackson County Medical Society; aged 83; died April 17.

Sinner, Bernard L., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1933; member of St. Louis Medical Society; aged 48; died April 20.

Ferguson, Lewis H., M.D., Monett, a graduate of the Kentucky School of Medicine, 1907; honor member of the Ozarks County Medical Society; aged 75; died April 20.

From the Medical Schools

WASHINGTON UNIVERSITY

Elections

Dr. Arthur Kornberg, professor and chairman of the department of microbiology at Washington University School of Medicine, has been elected to membership in the National Academy of Sciences. Membership, which is limited to election of ten new members each year, is based on research. Dr. Kornberg heads a team of researchers in the medical school working on the synthesis of deoxyribonucleic acid. Dr. Kornberg, who came to the university in 1953 as chairman of the department of microbiology, formerly was chief of the enzyme and metabolism section of the National Institutes of Health of the U. S. Public Health Service.

Dr. Hallowell Davis, who is professor of physiology and research professor of otolaryngology at Washington University School of Medicine and director of research at the Central Institute for the Deaf, recently was named president-elect of the American Physiological Society. He will become an ex officio member of the board of governors of the Federation Societies for Experimental Biology, of which the American Physiological Society is the senior member.

Dr. Robert E. Shank, Danforth professor and chairman of the department of preventive medicine, recently was chosen as one of seven research and nutrition experts appointed as consultants to the U. S. Public Health Service on Indian problems.

Harry E. Panhorst, assistant professor of hospital administration at Washington University School of Medicine and associate director of Barnes Hospital, was elected a member of the Mid-West Hospital Association's board of trustees at the organization's recent annual convention in Kansas City.

Honors

Dr. E. V. Cowdry, director of the Wernes Laboratory of Cancer Research at Washington University School of Medicine, served as the honorary president of the First Pan American Cancer Cytology Congress held April 25 to 29 at Miami Beach. He also was chairman of one of the scientific sessions and presented a paper on "Further Observations on the Tracheal and Bronchial Epithelia of Smokers and Nonsmokers in Relation to Bronchiogenic Carcinoma." The paper was prepared in collaboration with Dr. Valentina Suntzeff, research associate in cancer, and Dr. Genshiro Ide, fellow in cancer research. Drs. Suntzeff and Ide also attended the Congress, along with Dr. Brian Spencer, visiting research associate in cancer, who presented a paper on "A Cytological Basis for the Biochemical Study of Bronchial Epithelium in Smokers and Nonsmokers."

Erik C. J. Carlson was honored at a reception given by Washington University School of Medicine May 8 at the medical center. Mr. Carlson, who is superintendent of buildings and grounds and has charge of the receiving room at the school, has been employed at the medical school for fifty years. He formerly was superintendent of the maintenance department.

Postgraduate Course

A postgraduate course in geriatric medicine and the psychosocial problems of later life was held May 22 to 24 at the St. Louis Chronic Hospital and the Washington University Medical Center. It was conducted by members of the division of gerontology at the university's school of medicine. The course was sponsored by the Division of Health of the Department of Public Health and Welfare of Missouri. Cosponsors were the Missouri Heart Association, the St. Louis Heart Association, the Gerontological Research Foundation, the St. Louis Medical Society, the St. Louis County Medical Society, the Missouri State Medical Association and the St. Louis Academy of General Practice. Speakers included medical staff members from Washington and St. Louis universities, the St. Louis Chronic Hospital and several noted out-of-town guests.

Meetings

Dr. Viktor Hamburger, professor and chairman of the department of zoology at Washington University, gave the annual Robert J. Terry lecture April 24 at the Washington University Medical Center. His subject was "Cell Differentiation and Organogenesis." The lecture is sponsored by the medical school. Dr. Hamburger is one of the country's leading authorities in experimental embryology and, in 1942, published a book titled "Manual of Experimental Embryology." For his work in the field of zoology he was elected to the National Academy of Sciences in 1953. The lecture, established in 1938, honors Dr. Terry, professor emeritus of anatomy, who introduced reforms in the teaching of human anatomy. He presented these reforms in a book, "Introduction to the Study of Human Anatomy," published in 1929. Dr. Terry was graduated in 1895 from the Missouri Medical College, forerunner of Washington University School of Medicine. He joined the university faculty after graduation and became head of the department of anatomy in 1900, a position he held until his retirement from teaching in 1941. Dr. Terry still is active in research.

Twelve senior medical students at Washington University participated in the annual senior research assembly held April 26 at the medical center. They presented scientific reports of research they had conducted some time during their four-year medical school training. Projects were carried on in addition to regular classwork. Participants were: Edward P. Cohen, Edward H. Forgotson, Seymour Gassner, Milton S. Grossman, Guido Guidotti, Jack Kayes, Jewell L. Osterholm, Norman D. Sower, Mrs. Linda Z. Sunseri, Stephen G. Sunseri, Lewis J. Thomas, Jr., and Miss Nancy Voege. Paul Rubenstein, president of the senior medical class, presided at the assembly.

Dr. James Barrett Brown, professor of clinical surgery, spoke on "Cancer of the Mouth and Neck" at a recent meeting of the Surgeons' Club of Richmond, Va. On May 8 Dr. Brown and Dr. Minot P. Fryer, assistant professor of clinical surgery, discussed "Electrical Burns" at the meeting of the American Surgical Association in Chicago.

Dr. James L. O'Leary, professor of neurology, spoke at a public meeting sponsored by the St. Louis Chapter of the Multiple Sclerosis Society on May 6. Dr. O'Leary discussed the progress of research in the field of multiple sclerosis.

Grants

Gifts totaling $109,910 from the American Cancer

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1. Bodkin, L.G., and Ferguson, E.A., Jr.: Successful Ointment Therapy for Pruritus Ani, Am. J. Digest. Dis. 18:59 (Feb.) 1951.
2. Fromer, J.L.: Dermatologic Concepts and Management of Pruritus Ani, Am. J. Surg. 90:805 (Nov.) 1955.

Society are being used in current research at Washington University School of Medicine, Dean Oliver H. Lowry announced recently. This is part of the Society's program to support investigation important in the study of cancer. Recipients of grants, their projects include: Dr. Lowry, professor and chairman of the department of pharmacology and dean, $14,796, for study of the chemistry of individuals cells of the nervous system; Dr. Sidney F. Velick, associate professor of biological chemistry, $7,550, to support research on the isolation and characterization of respiratory proteins; and Dr. Melvin Chon, associate professor of microbiology, $4,961, for work on specific factors involved in the biosynthesis of proteins. Scholarships of $6,000 each are held by Dr. Paul Berg, assistant professor of microbiology, for research on enzymes involved in the synthesis of proteins, and Dr. Eric Reiss, instructor in medicine, for work on protein metabolism in chronic disease, with special emphasis on infection. Dr. I. R. Lehman, research fellow in microbiology, holds a $4,300 fellowship to support his research on enzymes involved in the synthesis of nucleic acids. An institutional grant of $38,150 has been divided among several staff members to support their various research programs. A $28,153 grant to Dr. E. V. Cowdry, director of the Wernse Laboratory of Cancer Research at the medical school, was announced previously.

A $10,560 grant has been made to Washington University School of Medicine for heart research by the Life Insurance Medical Research Fund of New York, it was announced recently. The grant supports research by Dr. H. Mitchell Perry, instructor in medicine, on the relation of trace metals to cardiovascular disease.

The Rockefeller Foundation has granted $5800 to the medical school for research on the nature of abnormal hemoglobin synthesis in Mediterranean anemia. The grant was part of $8,104,849 made by the Foundation in the final quarter of 1956.

Medical Education Week

A number of faculty members and students of Washington University School of Medicine participated in radio and television programs celebrating Medical Education Week, which was observed throughout the country April 21 to 27 to familiarize the public with the progress and problems of medical education. Faculty participants were: Dr. Carl G. Harford, associate professor of medicine; Dr. John C. Herweg, assistant professor of pediatrics and assistant dean; Dr. Fred C. Reynolds, professor of orthopedic surgery; Dr. Edward W. Dempsey, professor and chairman of the department of anatomy and assistant to the dean; Dr. Frank R. Bradley, director of Barnes and affiliated hospitals; Dr. A. Norman Arneson, professor of clinical obstetrics and gynecology and associate professor of clinical radiology; Dr. Walter Baumgarten, Jr., instructor in clinical medicine; and Dr. Frank McDowell, associate professor of clinical surgery. The following medical students also participated: Paul Rubenstein, Guido Guidotti, Jack Kayes, Seymour Gassner, Milton Grossman, Linda Sunseri, Lewis J. Thomas, Jr., Norman Sower, Jewell Osterholm, Edward P. Cohen and William Bridgers.

UNIVERSITY OF MISSOURI

Accreditation Survey

The official liaison survey group of the American Medical Association and the Association of American Medical Colleges of Chicago, visited the University of Missouri Campus on March 20 to 23, 1957, for the purpose of inspection of the new four year School of Medicine prior to accreditation.

Dean Roscoe L. Pullen said that in order to be eligible for accreditation, a school of medicine must be ready to graduate students. The University School of Medicine has a class of twenty-three seniors, who will be the first candidates to receive M.D. degrees from the University since 1908.

Members of the liaison group who visited the school of Medicine for the three day period were: Dr. Edward L. Turner, Secretary, Council on Medical Education and Hospitals, American Medical Association; Dr. Andrew Bunten, also representing the American Medical Association; Dr. William Willard, Vice President, University of Kentucky and Dean of the new Kentucky School of Medicine, Lexington; and Dr. Leonard Fenninger, Assistant Dean, University of Rochester School of Medicine, Rochester, New York, both representing the Association of American Medical Colleges.

Graduation News

The University of Missouri School of Medicine, as well as the entire faculty of the University of Missouri will take great pride in bestowing M.D. degrees on twenty-three students from the School of Medicine in 1957. Not since 1908 has the University of Missouri offered a four year curriculum. Prior to 1955 only the preclinical curriculum was offered, with the third year being extended after 1955. The twenty-three students who will receive the M.D. degree at the annual commencement exercises are all residents of the State of Missouri, with the entire group receiving their full four year medical training at the University of Missouri.

The graduating class, their names, addresses and their choices for internship training are as follows:

Acuff, R. P., Columbia, Brooke Army Hospital
Adams, H. D., Chillicothe, Kansas City General
Barnes, L. J., Louisiana*
Buben, R. W., St. Louis, Cincinnati General
Davis, J. C., Neosho, Bellevue General
Dennis, W. P., Esther, Mound Park, St. Petersburg, Fla.
Drake, D. C., Columbia, Letterman General
Fisher, T. J., Canton, Bellevue General
Gillespie, W. F., Kansas City, Orange Memorial, Orlando, Fla.
Gordon, J. S., Windsor, Kansas City General
Hecker, J. E., Independence, Kansas City General
Horner, G. A., Cassville, Kansas City General
Howe, A. L., Brentwood, Cleveland City Hospital
Huber, K. H., Moberly, Maricopa County General, Phoenix, Ariz.
Oakley, J. E., St. Louis, St. Louis County
Powell, J. A., Rolla, Gorgas Hospital, Panama
Riley, C. T., Jr., Lebanon, Tripler Army Hospital
Ritter, E. L., St. Louis, San Francisco Hospital
Springgate, R. R., New Haven, Wayne County General, Detroit, Mich.
Stickler, J. E., Kirksville, U. of California, San Francisco
Totzke, H. A., Columbia, Queens Hospital, Honolulu
Turney, R. M., Independence, Jewish Hospital, St. Louis
Threadgill, J. M., Forsyth*

* Have not chosen the hospitals for internship training.

Meetings Held at the Medical Center

An open house for prospective students of Medical Technology was held at the University of Missouri School of Medicine on March 20, 1957. The open house was held by the Department of Pathology in cooperation with the Missouri Society of Medical Technologists. Approximately twenty high school and college students attended the meeting, whfich was held under the direction of Dr. E. T. Standley, assistant professor in the pathology department. Dr. Standley spoke to the group on "Futures in Medical Technology."

The Annual Spring Meeting of the Missouri Dietetic Association was held at the University of Missouri Medical Center on April 4 and 5, 1957. Dr. Thomas D. Luckey, professor and chairman, department of biochemistry, spoke at the afternoon session on April 4 on "Nutrition in Germ Free Animals." Mrs. Byrdine Tuthill, assistant professor of home economics and assistant director, dietary department, University Hospitals, presided at the morning session on Friday, April 5, and Miss Dorothy Vorhies, associate professor of dietetics and nutrition and director of the dietary department, University Hospitals, served as a panel discussant on "The Pros and Cons on Methods of Meeting Shortages of Dietetians."

The Annual Lectureship of Tau Chapter of Phi Beta Pi Medical Fraternity of the University of Missouri School of Medicine was held in the University Medical Center Auditorium on March 21, 1957. Dr. Frederick Lee Liebolt, attending surgeon in charge of orthopedics, The New York Hospital, New York, was the guest speaker and his subject was "The Knee Joint." This lectureship was held in conjunction with the third symposium on the "Management of Athletic Injuries" in cooperation with the department of surgery and the department of intercollegiate athletics of the University of Missouri.

The University of Missouri, in conjunction with Engineers Week, sponsored Science Student and Teacher Recognition Day on Friday, March 22, 1957. On Friday afternoon, tours and exhibits were arranged at the Medical Center, particularly in the departments of biochemistry, microbiology, anatomy, physiology and the School of Nursing, for those students and teachers desiring to visit the Medical Center.

Dr. Pullen spoke to the general assembly on Friday morning on "The Sciences as Basic Training for Those Entering Medicine."

Trips and Talks

Dr. Roscoe L. Pullen, Dean, School of Medicine, extended greetings to the guests attending the symposium on "Nursing Education" held at the Medical Center on March 15, 1957. Dr. Pullen also introduced Miss Ruby Potter, director of the School of Nursing, University of Missouri, and Miss Lucille Spalding, associate professor of nursing.

On March 27, 1957, Dr. Pullen spoke to the members of the University Women's Club on "Developments of the University of Missouri Medical Center."

Dr. Pullen spoke on April 2, 1957 at the Missouri Medical School Alumni Association meeting in Kansas City. The subject of Dr. Pullen's presentation was "Developments of the University of Missouri Medical Center."

Dr. Frank B. Engley, Jr., assistant dean and chairman and professor of the department of microbiology, was one of four panel members who discussed "What Is the Future of Youth in the Sciences?" on KOMU-TV March 18, 1957. The program, Missouri Forum, is produced and moderated by Neal Balanoff, instructor of speech and dramatic art at the University of Missouri. Other panel members in addition to Dr. Engley included: James W. Wells, works manager, East St. Louis Plant of the Aluminum Company of America; Edward M. Palmquist, associate dean of arts and science, and professor of botany at the University, and Edgar J. Gildehaus, sales engineer for the Union Electric Company in St. Louis.

Dr. Engley has been appointed a member of the Committee on Laboratory Section Liaison Relationships of the American Public Health Association. The committee will study the problems of recruitment and training of laboratory workers, postgraduate education, laboratory procedures and the need for biological reagents not available commercially.

The members of the faculty of the School of Medicine who attended the Missouri State Medical Association meetings in Kansas City March 31 through April 3, 1957, were: Dr. R. L. Pullen, Dr. Thomas W. Burns, assistant professor of medicine, Dr. Walter R. Hepner, associate professor of pediatrics, Dr. M. Pinson Neal, professor of pathology, Dr. M. D. Overholser, chairman and professor, department of anatomy, Dr. Robert L. Jackson, professor and chairman, department of pediatrics, Dr. Hugh E. Stephenson, Jr., associate professor and chairman of the department of surgery, and Dr. John H. Killough, associate professor, department of medicine.

Dr. Neal presided at the afternoon session of the General Meeting on Monday, April 1.

Dr. Burns spoke at the morning session on April 1, 1957, using as his subject: "Practical Application of the Laboratory in Diabetes Mellitus."

Dr. Hepner spoke at the afternoon session of the Panel on Pediatrics on "Use of Antibiotics and Sulfas."

Dr. Jackson spoke at the Committee on Diabetes dinner meeting Monday, April 1, on "Relative Importance of Duration and Control in the Development of Diabetic Retinopathy in Juvenile Patients."

At the Clinical Pathological Conference on April 2, 1957, Dr. Killough was one of the Discussants.

Dr. Hugh E. Stephenson, Jr., associate professor and chairman of the department of surgery, recently visited the University of Chicago Clinics (Billings Hospital), the department of anesthesia and the department of surgery at the University of Illinois and the School of Medicine at Madison, Wisconsin.

On March 22, Dr. Stephenson, Dr. Grafton A. Smith, assistant professor of surgery, and Dr. William H. Wade, instructor in surgery, spoke at a dinner meeting of the Greene County Medical Society in Springfield, Missouri. Dr. Stephenson spoke on "Facts and Fallacies in Cardiac Resuscitation." Dr. Smith's topic was "Intestinal Obstruction" with special reference to treatment, and Dr. Wade discussed some of the atypical aspects of appendicitis.

Dr. Stephenson spoke to the Grand River Medical Society in Chillicothe, Missouri, on Thursday, April 11.

At the Annual Career Day Exercises held by Hickman High School in Columbia, Dr. Stephenson represented the medical profession.

Special guests visiting and speaking to the department of surgery included: Dr. A. R. Shands, director of the Nemours Foundation of the duPont Institute of Wilmington, Delaware, who spoke to the combined junior and senior student bodies on various aspects of the care of crippled children. Other guests to the department of surgery included Dr. Paul J. Sides of

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Lancaster, Kentucky, who spoke on various aspects of surgery as encountered in general practice. Dr. Kenneth Keown of Philadelphia, Pa., was a guest on Monday, April 8.

The Twenty-fifth Annual Meeting of the Missouri Society of X-ray Technicians was held in Jefferson City on March 29 and 30, 1957, with George F. Koenig, instructor in radiologic technology and chief radiologic technician for the University Hospitals, acting as chairman of the program committee.

Those attending, in addition to Mr. Koenig, included Dr. Gwilym S. Lodwick, professor and chairman, department of radiology; Dr. Theodore E. Keats, associate professor; Dr. James E. Bauer, instructor and 3rd year resident, and Dr. C. M. Waggoner, clinical associate, all from the department of radiology.

Dr. Bauer was one of the speakers at the afternoon session on March 29 where he spoke on "Diagnostic and Therapeutic Applications of Radio-Isotopes."

At the afternoon session on Saturday, March 30, Dr. Keats spoke on "Cardio-Vascular Radiology," Dr. Waggoner spoke on "Preparation in Oral Cholecystography" and Mr. Koenig served as moderator on a panel discussion on "Technics."

Dr. Lodwick was the banquet speaker on March 30, using as his subject: "Development of the Medical Center at the University of Missouri."

Mr. Koenig recently won the National Electrical Manufacturers Association Award for a paper entitled: "Kilovoltage as a Qualitative Factor."

Dr. Joseph E. Flynn, professor and chairman, department of pathology, was guest speaker at a meeting of the University of Missouri Chapter of Sigma Xi on April 3, 1957. Dr. Flynn used as his subject: "Fundamentals of Blood Clotting and Their Application to Clinical Medicine."

From April 7 through the 10, Dr. Flynn attended the planning and summarizing committee meeting for a workshop in Graduate Education in Pathology, sponsored by the College of American Pathologists, which met in Washington, D. C.

On March 30, 1957, Dr. Flynn attended the combined meeting of the Kansas and Missouri State Societies of Pathologists held in Wichita, Kansas.

Dr. Flynn took office as President of the Missouri State Society of Pathologists on March 31, 1957, in Kansas City, and in April, 1957, he was appointed Chairman of the Laboratory Committee of the Missouri State Medical Association.

At the annual clinical day program held at the Children's Mercy Hospital on Thursday, March 21, 1957, in Kansas City, Dr. Robert L. Jackson, professor and chairman, department of pediatrics, spoke on the "Pediatrics Department of the University of Missouri, Columbia, Missouri."

From March 10 through March 17, Dr. Jackson attended a symposium on "Fats in Human Nutrition," sponsored by the Council on Foods and Nutrition, American Medical Association, in cooperation with the Tulane University School of Medicine, Louisiana State University School of Medicine, New Orleans, Graduate Medical Assembly, and the Orleans Parish Medical Society, held at Louisiana State University, New Orleans. Dr. Jackson was a discussant of the paper by Dr. L. Emmett Holt, Jr., on "Dietary Fat—Its Role in Nutrition and Human Requirement."

Dr. Clement E. Brooke, assistant professor, department of pediatrics, attended the 1957 meeting of the Society for Research in Child Development held in Iowa City, Iowa, on April 4 through 7. Dr. Brooke discussed "The Importance of Accurate Diagnosis in the Management of Children" on a panel.

On March 12, 1957, Dr. Brooke, Dr. C. S. Anast, assistant professor, and Dr. H. M. Waiches, instructor, all from the department of pediatrics, attended the general meeting of the Kansas City Southwest Pediatric Society in Kansas City.

Dr. Thomas D. Luckey, professor and chairman, department of biochemistry; Dr. John M. Franz, instructor, and Dr. A. A. White, assistant professor, department of biochemistry, attended a Seminar in Iowa City, Iowa, on March 13 given by the American Chemical Society at the University of Iowa. Dr. Ralph Holman from the Hormel Institute gave the presentation.

Dr. W. A. Sodeman, professor and chairman, department of medicine, attended the second Inter-American Medical Congress held at Panama City, Panama, on April 4, 1957, where he spoke on "The Liver in Amebiasis." There were approximately 400 attending the meetings.

Dr. Thomas W. Burns, assistant professor, department of medicine, spoke to members of the Columbia Chapter of the National Secretary's Association on April 4, 1957, using as his subject: "Egypt—Past and Present."

From April 8 through 12, Dr. Burns attended the meeting of the American College of Physicians in Boston, Massachusetts.

Awards

Dr. Frank B. Engley, Jr., assistant dean of the School of Medicine and professor and chairman of the department of microbiology, has been elected a charter member of the American Academy of Microbiology, according to an announcement by G. I. Wallace of Urbana, Illinois, executive secretary of the academy.

The Academy is composed of men distinguished in the field of microbiology and having a wide range of training and experience in the profession. Its purposes are "To promote the highest professional standing on behalf of the science of microbiology; to carry on professional activities on behalf of the science; and to promote programs of recognition, certification and accreditation where needed to accomplish the above purposes."

Dr. B. A. Moranville, II, assistant instructor and first year resident in the department of medicine, was the recipient of the Mead Johnson Award on March 27, 1957, conferred by the Mead Johnson Awards Committee of the American Academy of General Practice meeting in St. Louis.

New Appointees to the School of Medicine

Dr. Louis H. Kohler, Superintendent, and Dr. H. K. Busch, both of the St. Louis State Sanitorium, St. Louis, and Dr. Robert Barnes and Dr. John Cumming of the Greater Kansas City Mental Health Foundation, have been appointed to the Department of Medicine to serve as clinical associates in psychiatry.

Dr. Abraham Van Der Borden has been appointed assistant instructor in the department of medicine and is serving as a first year resident. Dr. Van Der Borden received his M.D. degree in Rotterdam, The Netherlands, in 1953.

Dr. Enriqueta Montes has been appointed an assistant instructor and first year resident in the department of pediatrics. Dr. Montes received the M.D. degree at the University of Santo Thomas, Manila, Philippines, in 1951.

Dr. Herbert G. Lang, a graduate of the University of Texas Medical Branch in Galveston in 1945, has

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been appointed an instructor and third year resident in the department of obstetrics and gynecology.

Dr. James H. Allen has been appointed an assistant instructor and first year resident in the department of medicine. Dr. Allen is a 1955 graduate of the St. Louis University School of Medicine.

Mr. John David Collins of Macon, Missouri, has been appointed a lecturer in medico-legal medicine to the School of Medicine.

Dr. Vincent Perna of Greenwich, Connecticut, is joining the staff of the pathology department, University of Missouri School of Medicine, in June 1957 as instructor.

Dr. Perna received his B.A. Degree from Wesleyan University, Middletown, Connecticut, in 1948 and his Master's degree from the University of Rochester. His medical training was received at the College of Physicians and Surgeons, Columbia, where he graduated in 1953 at the top of his class.

His residency in pathology was taken at Columbia Presbyterian Medical Center, following which he became chief, laboratory services, at Camp Chaffee, Arkansas, where he is presently assigned.

Dr. Perna is a member of Alpha Omega Alpha, Honorary Medical Fraternity.

New Appointees to the School of Nursing

Recent appointees to the University of Missouri School of Nursing as assistant instructors include Marilyn Jane Walters, Lynette Marie Hollaender and Melba C. McCarver.

Personnel Changes

Announcement has been made of the resignation of Dr. W. A. Sodeman, from professor and chairman, department of medicine, effective August 1, 1957, and Dr. E. T. Standley, assistant professor in the pathology department, effective July 1, 1957. Dr. Sodeman has accepted a position with the Jefferson Medical College of Philadelphia as head of the department of medicine and Dr. Standley is entering private practice in Taunton, Massachusetts.

Dr. C. D. Davis has resigned as professor in obstetrics and gynecology to accept an appointment at Yale University Medical School.

Dr. George Fuchs, formerly assistant professor in the department of obstetrics and gynecology has resigned his professorship to enter private practice in Columbia. He will, however, remain as clinical associate to the School of Medicine.

University of Missouri School of Nursing News Items

On March 25, 1957, Mrs. Una R. Thomas, R.N., instructor, talked on the basic program of the University of Missouri School of Nursing to a group of high school students from the Future Nurses Club of Fulton, Missouri, who visited the Medical Center.

Miss Ruth Linville, R.N., instructor, visited Herculaneum High School, Crystal City High School and Festus High School on March 26, 1957, where she spoke at Career Day exercises on "Nursing as a Career."

Miss Ruby M. Potter, director of the school of nursing, spoke to the high school juniors and seniors in Fulton, Missouri, on April 12, 1957, under the sponsorship of the Kiwanis Club and Guidance Department of Fulton High School. Miss Potter discussed "Nursing as a Career."

The fifty-first convention of the Missouri State Nurses' Association was held at the Hotel Governor in Jefferson City, on April 12 and 13. Those from the School of Nursing who attended were: Miss Ruby Potter, professor and director; Frances Gilbert, assistant professor; Fern Stuber, assistant professor; Betty Jean Crim, instructor; Una Rice Thomas, instructor; Irene Gwinnup, instructor; Cordelia M. Cochran, assistant instructor; Ruth Linville, instructor; and Joan Walsh, instructor.

Miss Lucille Spalding, assistant professor, was elected first vice-chairman of the Educational Administrators, Consultants and Teachers Section of the Missouri State Nurses' Association, and Irene Gwinnup was elected chairman of the nominating committee for the same section.

Miss Lila Baker, a fourth year student in the School of Nursing, from Arbela, was selected as Miss Missouri Student Nurse for 1957 at the recent meeting in Jefferson City. Miss Baker was selected from representatives of the schools of nursing throughout the State of Missouri.

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Lectures, Travel

Dr. Edward A. Doisy, Sr., director of the department of biochemistry, was chairman of a session on "Bile Acids and Cholesterol" before the American Society of Biological Chemists Section at the meeting of the Federation of American Societies for Experimental Biology held in Chicago April 15 to 19. Papers presented by the faculty of the internal medicine and biochemistry departments in that section included: "Partial Synthesis of New Bile Acids," by Dr. Sidney A. Thayer, professor of biochemistry, and S. L. Hsia, research assistant; "Quantitative Studies of Production of Bile and Bile Acids in the Rat," by Dr. William H.

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Elliott, associate professor of biochemistry; "Metabolism of 7-Ketolithocholic Acid-24-C^{14} in the Rat," by Dr. E. A. Doisy, T. A. Mahowald, graduate student, and M. W. Yin, graduate student; "Metabolites of Hyodeoxycholic Acid in Surgically Jaundiced Rats," by Dr. E. A. Dosey, Jr., associate professor of internal medicine, and J. T. Matschiner and R. L. Ratliff, graduate fellows.

Dr. X. J. Musacchia, associate professor of biology, and Stanley Brumleve, graduate student, represented the department at the meeting of the American Physiology Society. They delivered a joint paper on the progress of their research in the effects of cold exposure in enzyme activity. The title of their paper was "Coezyn A Activity and Fatty Acid Level in Tissues."

Dr. Alfred W. Richardson, associate professor of physiology, demonstrated a piece of newly developed scientific equipment, throughout the week-long scientific meeting, which can assay blood in three different ways. The device has a number of clinical uses—one of the most important being to aid in the prevention of a second coronary by assaying the clotting tendency of blood following a first coronary attack. Dr. Richardson and Dr. Jack G. Bishop, director of the department of physiology at Baylor University, designed and developed the equipment after five years of research on the blood problem.

Dr. James W. Colbert, Jr., Dean, School of Medicine, spoke before St. Mary's Hospital in San Francisco and Mercy Hospital in San Diego the latter part of April. The subject of his address was "The Patient Physician Relationship as the Trancendant Principle in Judging Medical Care Plans."

Dr. Robert D. Mattis, executive secretary of the department of clinical ophthalmology, spoke before the Massachusetts Eye and Ear Infirmary in Boston April 23.

Dr. Stewart G. Wolf, Jr., director of the department of internal medicine, University of Oklahoma, delivered the annual lecture sponsored by the Phi Rho Sigma Medical Fraternity April 15. His lecture was titled "Recent Studies on the Relationship of Serum Cholesterol to Life Stress in Patients With Coronary Artery Disease." This year's lecture honored Dr. Robert Britt, former associate professor of clincial neurology and psychiatry, who died last October of heart disease.

One hundred graduate surgeons training in orthopedic surgery from many parts of the midwest assembled at the School of Medicine to take oral and written examinations to qualify them as specialists in orthopedic surgery April 18 and 19. The examination was conducted by the American Board of Orthopedic Surgery, University of Indiana School of Medicine. Dr. Garceau was assisted by twenty-five orthopedists drawn from St. Louis University, Washington and other medical schools throughout the Midwest. Chairman of the local arrangement committee was Dr. Robert M. O'Brien, professor of clinical orthopedic surgery and chairman of the department, St. Louis University School of Medicine. Cochairman was Dr. Fred C. Reynolds, professor of orthopedic surgery, Washington University School of Medicine. The candidates for examinations are graduate surgeons engaged in residency programs in hospitals located throughout the central part of the United States.

A memorial service for Dr. Albert Kuntz, former director of the department of anatomy, was held at the University Law Auditorium April 7. Speakers included

Dr. Kermit Christensen, acting director of the department of anatomy; Dr. James W. Colbert, Jr., dean; Rev. Alphonse M. Schwitalla, S.J., dean emeritus, School of Medicine, and Dr. Arthur W. Neilson, instructor in dermatology. The speakers reviewed Dr. Kuntz' life, describing his scientific achievements, his qualities as a departmental academic leader and as a man.

Medical Education Week

Six television shows and one radio show were produced in St. Louis in observance of Medical Education Week which was celebrated by the nation's eighty-two medical schools April 21 to 27. St. Louis University and Washington University School of Medicine faculty members participated in five of the TV shows and in the radio show. Participants from St. Louis University were Dr. James P. King, director of the department of pediatrics, who took part in "Wake Up St. Louis," a show broadcast over Radio Station KXOK April 20; Dr. J. Gerard Mudd, assistant professor of internal medicine and director, Cardiac Catheterization Laboratory, who participated in a show titled "Community Forum" telecast over KWK-TV April 22; Dr. Ralph A. Kinsella, Jr., associate professor of internal medicine; Dr. Raymond O. Muether, associate professor of internal medicine, and Dr. R. Walter Schlesinger, professor of microbiology and director of the department joined three Washington University faculty members in a forty-five minute Town Meeting of the Air show on the "St. Louis University Magazine of the Air" over KETC-TV April 23. A TV show on the residency and internship program at St. Louis University was telecast over KTVI-TV April 26. The show, sponsored by the St. Louis Medical Society, was titled "It's Worth Your Life." Participants included Dr. William A. Knight, associate professor of internal medicine and director of the intern and resident program at St. Louis University; Dr. Wilbert Henke, intern; Dr. John Budd, chief resident, and Dr. Richard Reider, assistant resident. Moderator of the show was John Warner, associate director, Firmin Desloge Hospital. A thirty minute show titled "Medical Forum" was telecast over KETC-TV April 26. One of the four participants was Dr. Daniel Sexton, associate professor of clinical medicine, St. Louis University. The public was invited to phone the St. Louis Medical Society, sponsors of the show, before and during air-time concerning any of the subjects they had heard on preceding TV shows during Medical Education Week. Mr. Clarence Pierson, Health Educator, gave a preview salute to Medical Education Week in a show produced over KWK-TV April 15. He presented a film on Medical Education.

Alpha Omega Alpha

Sixteen St. Louis University medical students were initiated into Alpha Omega Alpha honorary medical society at an annual banquet honoring Rev. Alphonse M. Schwitalla, S.J., dean emeritus, School of Medicine, on April 30 at Firmin Desloge Hospital. Seniors received into the society were Benjamin Broghammer, Peter Citrone, Richard K. Danis, Lewis J. Goetz, John J. Lang, Dean A. Miller, Paul Moran, Joseph A. Moriarty, Charles L. Olson, John G. Suelzer and Charles B. Wolf. Juniors admitted were James F. McCool, Jr., James A. O'Neill, Thomas A. Schneider, James L. Streibel and Richard L. Thienes. Dr. Colbert was the principal speaker at the banquet.

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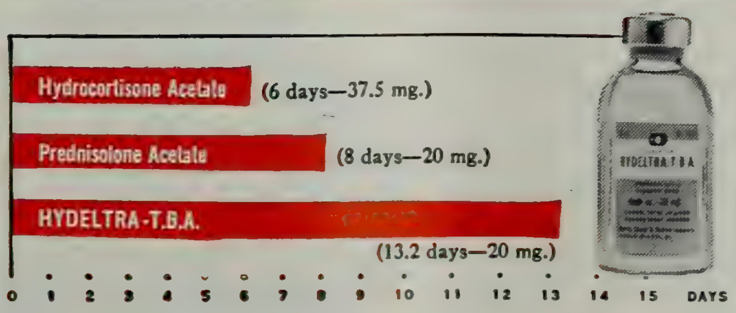

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BOOK REVIEW

Clinical Urology for General Practice, by Justin J. Cordonnier, M.D., Professor of Urology, Washington University School of Medicine, St. Louis, Missouri; Chief of the Department of Urology, Barnes, St. Louis Children's and Allied Hospitals; Chief of Urology, Washington University Clinics; Consultant in Urology, U. S. Veterans Hospital, St. Louis, Missouri. Illustrated. The C. V. Mosby Company, St. Louis, 1956. Price $6.75.

This book should prove to be popular with medical students and general practitioners. The medical student who is overwhelmed by a myriad of subjects will appreciate this book because of the special emphasis placed on diagnosis and therapy. The busy general practitioner will find this book to be a concise, practical and quick reference to the more common urologic problems. When more detailed information for a particular problem is desired, additional references are given at the end of each chapter.

The book is divided into eleven chapters. The first chapter is devoted exclusively to the proper steps in making a urologic diagnosis. The next two chapters are devoted to obstructive uropathy and neoplasms of the genito-urinary tract. The difficult and voluminous subject of infections of the genito-urinary tract has been succinctly presented. The complicated problems of renal failure and neurogenic bladder dysfunction are likewise discussed lucidly. The remaining chapters deal with urinary calculi, senescence, fertility and impotence in the male with all its practical implications, injuries of the genito-urinary tract, female urology and congenital anomalies of the genito-urinary tract. M.A.

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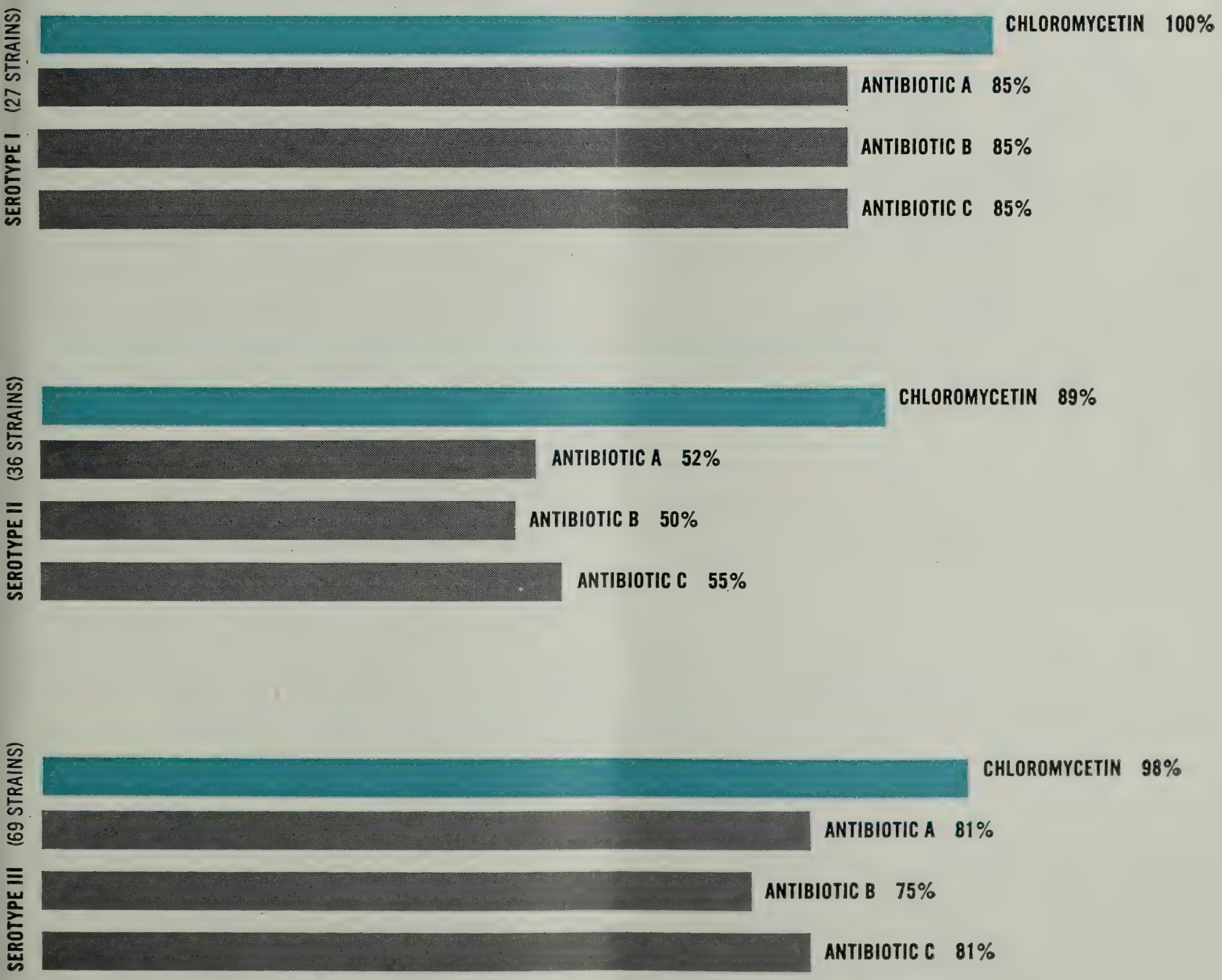

*This graph is adapted from Metzger & Jenkins.[1]
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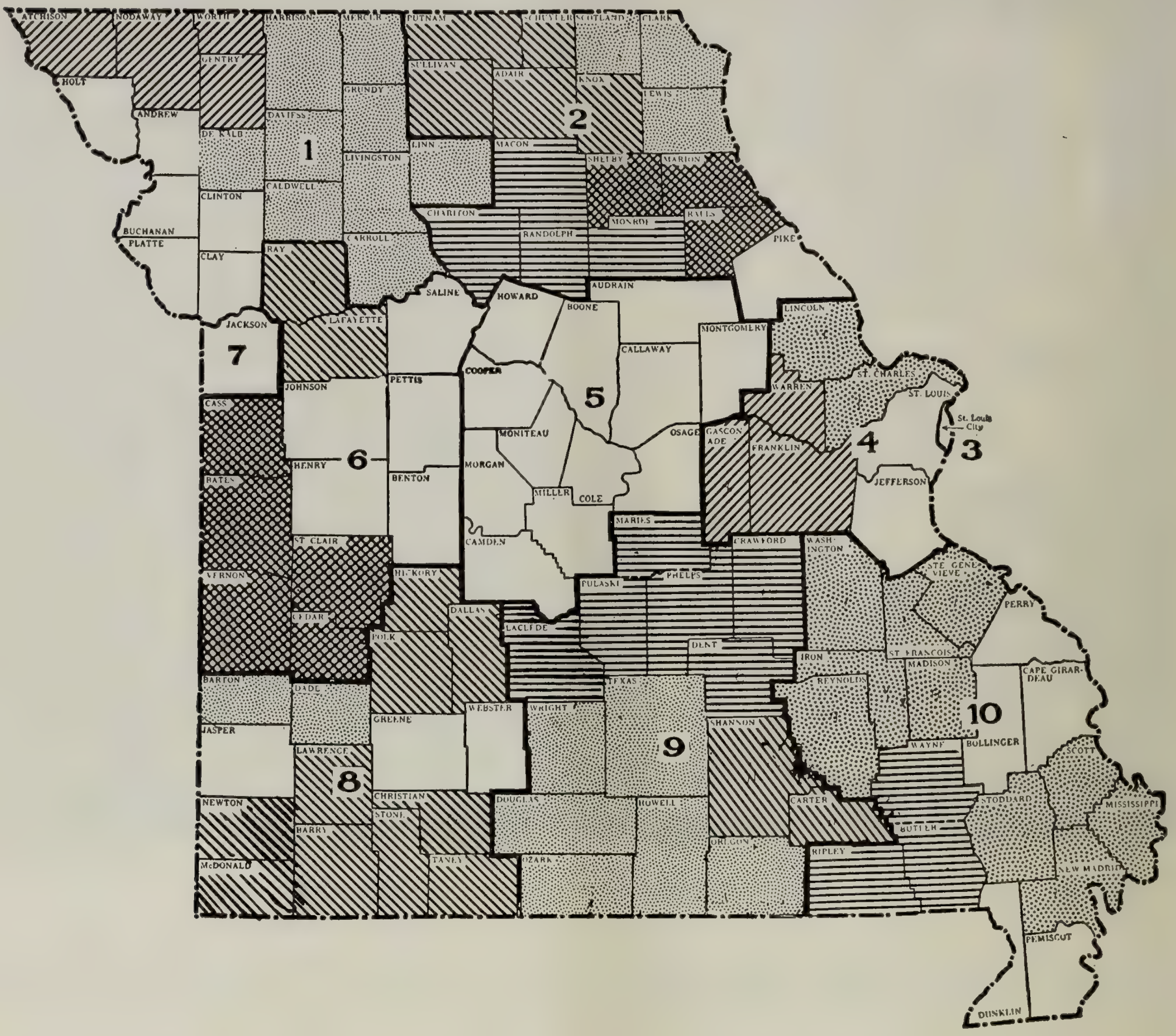
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ANDREW
DE KALB
DAVIESS
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2
LINN
MACON
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LIVINGSTON
CALDWELL
CLINTON
CHARITON
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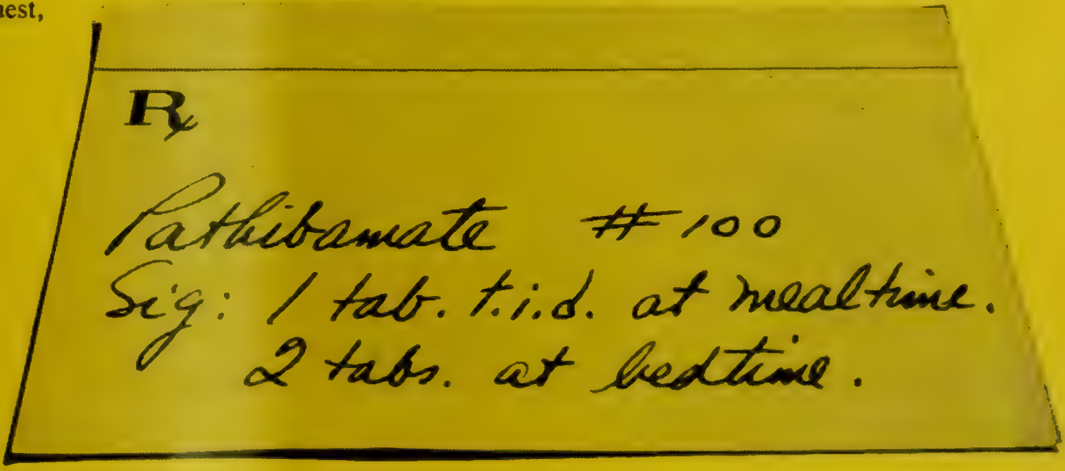

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9 Huntleigh Downs, St. Louis 22

Circulation Manager
Mrs. Wm. Grundmann
6948 Delmar Blvd., University City 5

Civil Defense
Mrs. Robert Dunshee
215 W. Edwards, Maryville

Courtesy
Mrs. George W. Ruddell
1333 Highmont Drive, St. Louis County 13

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Mrs. J. W. Boger
1601 West Third, Sedalia

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Mrs. T. Reed Maxson
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Medical Student Loan Fund

Mrs. Oliver E. Tjoflat
252 Woodbourne Dr., St. Louis 5

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Mrs. Carl T. Buehler, Jr.
608 E. Newton, Eldon

Mental Health

Mrs. Robert B. Bristow
Country Club Place, St. Joseph

Health Careers Recruitment

Mrs. A. P. Stephan
98 West Circle Dr., Jefferson City

Mrs. Robert H. Stewart
1815 West 10th St., Sedalia, Co-chairman

Organization

Mrs. Logan Mayfield
28 Jefferson, Crystal City

Press & Publicity

Mrs. Leo FitzGerald
7219 Cornell, St. Louis 5

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12 Daniel Rd., St. Louis 17

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Mrs. Robert E. Koch
10036 Conway Rd., St. Louis 24

Safety

Mrs. G. Alex McBurney
927 Hurt St., Slater

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115 Professional Bldg., Springfield

W. F. Francka, M.D.
603 Country Club Drive, Hannibal

Robert Mueller, M.D.
812 Olive Street, St. Louis 1

Missouri Medical Meetings

Missouri State Medical Association Annual Session, St. Louis, April 13-16, 1958.
Kansas City Southwest Clinical Society, Conference, Sept. 30-Oct. 3, 1957, Kansas City.
Missouri Academy of General Practice, Annual Meeting, Governor Hotel, Jefferson City, October 30-31, 1957.
St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Society—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—third Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—fourth Tuesday of each month except June, July and August, at auditorium of General Hospital No. 1.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets only on call.
Johnson County Medical Society—meets only on call.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark-Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Webster County Medical Society—meets only on call.
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 54 July, 1957 Number 7

Minutes of the House of Delegates

Ninety-Ninth Annual Session

March 31, April 1, 2, 3, 1957

Kansas City

Sunday Session

The first meeting of the House of Delegates of the Ninety-ninth Annual Session of the Missouri State Medical Association was called to order at 1:30 p. m., March 31, in the Little Theater, Municipal Auditorium, Kansas City, with Joseph L. Fisher, M.D., St. Joseph, Speaker, presiding.

Officers, Councilors and Delegates present during the Annual Session follow:

Officers

President	Carl F. Vohs, St. Louis
President-elect	Walter S. Sewell, Springfield
Secretary	E. Royse Bohrer, Jefferson City
Treasurer	Jerome I. Simon, St. Louis
Vice President	Victor E. Scherman, St. Louis
Vice President	W. J. Shaw, Fayette
Speaker of the House	Joseph L. Fisher, St. Joseph
Vice Speaker of the House	Oscar P. Hampton, Jr., University City

Councilors

1st District	Donald M. Dowell, Chillicothe
2nd District	W. F. Francka, Hannibal
3rd District	R. O. Muether, St. Louis
4th District	Joseph C. Creech, Troy
5th District	Byron M. Stuart, Boonville
6th District	C. G. Stauffacher, Sedalia
7th District	Ralph Perry, Kansas City
8th District	B. E. DeTar, Joplin
9th District	J. H. Summers, Lebanon
10th District	Ben M. Bull, Ironton

DELEGATES

First District

Buchanan	Robert B. Bristow, St. Joseph
Buchanan	Joseph L. Fisher, St. Joseph
Clinton	J. P. Mabrey, Plattsburg
Grand River Caldwell	Howard Carter, Hamilton
Livingston	J. A. Conrad, Chillicothe
Carroll	J. H. Platz, Carrollton
Grundy	C. L. Clark, Trenton
Daviess	F. K. Wilson, Winston
Harrison	W. A. Broyles, Bethany
Linn	J. R. Dixon, Brookfield
Mercer	F. H. Zahrt, Princeton
DeKalb	G. D. Johnson, Maysville
Nodaway-Atchison-Gentry-Worth	Elvin D. Imes, Maryville
Nodaway-Atchison-Gentry-Worth	Frank B. Matteson, Grant City
Platte	Silas L. Durham, Dearborn

Second District

Chariton-Macon-Monroe-Randolph	George Hawkins, Salisbury
Chariton-Macon-Monroe-Randolph	James E. Campbell, Macon
Chariton-Macon-Monroe-Randolph	Philip V. Dreyer, Huntsville
Marion-Ralls-Shelby	B. L. Murphy, Hannibal
North Central	S. L. Freeman, Kirksville
Pike	C. H. Lewellen, Louisiana

Third District

St. Louis City	Louis H. Kohler, St. Louis
St. Louis City	George L. Hawkins, Jr., St. Louis
St. Louis City	Bernard T. Koon, St. Louis
St. Louis City	Harold E. Walters, St. Louis
St. Louis City	Curtis H. Lohr, St. Louis
St. Louis City	Dean Sauer, St. Louis
St. Louis City	Walter T. Gunn, St. Louis
St. Louis City	Albert Repetto, St. Louis
St. Louis City	Charles Sherwin, St. Louis
St. Louis City	Donald O. Burst, St. Louis
St. Louis City	Robert B. Bassett, St. Louis
St. Louis City	Frank McDowell, St. Louis
St. Louis City	George E. Thoma, Jr., St. Louis
St. Louis City	Jerome I. Simon, St. Louis
St. Louis City	Joseph E. Von Kaenel, St. Louis

St. Louis City	Joseph C. Peden, Sr., St. Louis
St. Louis City	Paul F. Max, St. Louis
St. Louis City	Frank G. Zingale, St. Louis
St. Louis City	George H. Lawrence, St. Louis
St. Louis City	J. Otto Lottes, St. Louis
St. Louis City	Sam J. Merenda, St. Louis
St. Louis City	J. William Thompson, St. Louis
St. Louis City	James P. Murphy, St. Louis
St. Louis City	Leonard T. Furlow, St. Louis
St. Louis City	John P. Eberle, St. Louis
St. Louis City	Robert W. Kelley, St. Louis

Fourth District

Franklin-Gasconade-Warren	John Pearl, St. Clair
Franklin-Gasconade-Warren	George Workman, Hermann
Franklin-Gasconade-Warren	Herbert Schmidt, Marthasville
Jefferson	Charles E. Fallet, DeSoto
Lincoln-St. Charles	Edward Damron, Elsberry
Lincoln-St. Charles	Vincent Schneider, St. Charles
St. Louis County	Roy A. Walther, Jr., Overland
St. Louis County	Louis F. Howe, St. Louis
St. Louis County	William H. Bailey, St. Louis
St. Louis County	James F. Dowd, St. Louis
St. Louis County	James R. Meador, Clayton
St. Louis County	Oscar P. Hampton, St. Louis
St. Louis County	Joseph B. Kendis, St. Louis
St. Louis County	Martyn Schattyn, St. Louis

Fifth District

Audrain	G. P. Kallenbach, Mexico
Boone	James Cope, Columbia
Boone	M. Pinson Neal, Columbia
Callaway	W. J. Cremer, Fulton
Cole	G. Donald Shull, Jefferson City
Cooper	G. Warren Winn, Boonville
Howard	William J. Shaw, Sr., Fayette
Miller	W. L. Allee, Eldon
Morgan	Robert R. Lyle, Versailles

Sixth District

Henry	W. D. Bradshaw, Clinton
Johnson	Charles M. Lederer, Warrensburg
Lafayette-Ray	W. E. Martin, Odessa
Lafayette-Ray	I. E. Goldberg, Braymer
Pettis	John E. Lamy, Sedalia
Saline	R. C. Haynes, Sr., Marshall
West Central	
Bates	A. L. Hansen, Butler
Cass	O. B. Barger, Harrisonville
Cedar	Robert L. Magee, El Dorado Springs
Vernon	Roy W. Pearse, Nevada

Seventh District

Jackson	Philip L. Byers, Kansas City
Jackson	Will R. Eubank, Kansas City
Jackson	John A. Growdon, Kansas City
Jackson	Frederick J. McCoy, Kansas City
Jackson	Raymond L. Morrow, Kansas City
Jackson	Herbert H. Virden, Kansas City
Jackson	James E. Keeler, Kansas City
Jackson	Dillard M. Eubank, Raytown
Jackson	William W. Gist, Kansas City
Jackson	William M. Kitchen, Kansas City
Jackson	William C. Mixson, Kansas City
Jackson	Lawrence F. Steffen, Kansas City
Jackson	Joseph C. Williams, Jr., Kansas City
Jackson	William Q. Wu, Kansas City

Eighth District

Greene	W. W. Tillman, Jr., Springfield
Greene	S. S. Peterson, Springfield
Greene	John P. Ferguson, Springfield
Jasper	W. T. McNew, Carthage
Jasper	S. W. Scorse, Joplin
Ozarks	
Barry	Robert R. Donley, Monett
Lawrence	Kenneth Glover, Mt. Vernon
Taney	Jesse M. Threadgill, Forsyth
Newton	M. C. Bowman, Neosho
McDonald	J. J. Royce, Noel
Webster	T. M. Macdonnell, Marshfield

Ninth District

Mid-Missouri	
Phelps	E. A. Stricker, St. James
Laclede	H. W. Carrington, Lebanon
South Central	
Howell	Rollin H. Smith, West Plains
Oregon	C. W. Cooper, Thayer
Wright	S. W. Connor, Mountain Grove

Tenth District

Cape Girardeau	John T. Crowe, Cape Girardeau
Mineral Area	
St. Francois	Harry M. Roebber, Bonne Terre
Iron	Marvin C. Menne, Ironton
SEMO	
New Madrid	Samuel M. Sarno, Morehouse
Scott	W. O. Finney, Chaffee

Registration preceded the meeting of the House of Delegates.

The Speaker called the House of Delegates to order.

The President, Carl F. Vohs, M.D., St. Louis, delivered the invocation.

J. W. Thompson, M.D., St. Louis, gave a preliminary report of the Committee on Credentials.

Mr. Tom R. O'Brien read the roll of delegates and alternates, which showed a quorum present.

Ralph Perry, M.D., Kansas City, reported briefly for the General Committee on Arrangements.

SPEAKER: The next order of business is the reading of the minutes of the previous meeting. These were published in the July 1956 issue of MISSOURI MEDICINE. What is your pleasure?

Upon motion, duly seconded, the minutes were approved as published.

The Speaker gave instructions to the delegates and appointed the following Reference Committees:

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

John F. Pearl, M.D., St. Clair, Chairman.
Robert B. Bristow, M.D., St. Joseph.
S. S. Peterson, M.D., Springfield.
O. B. Barger, M.D., Harrisonville.
J. W. Thompson, M.D., St. Louis.

REFERENCE COMMITTEE ON RESOLUTIONS

W. W. Gist, M.D., Kansas City, Chairman.
Joseph C. Peden, Sr., M.D., St. Louis.
Roy A. Walther, Jr., M.D., Overland.
Philip V. Dreyer, M.D., Huntsville.
William J. Shaw, Sr., M.D., Fayette.

REFERENCE COMMITTEE ON MISCELLANEOUS AFFAIRS

H. M. Roebber, M.D., Bonne Terre, Chairman.
W. J. Cremer, M.D., Fulton.
H. W. Carrington, M.D., Lebanon.
W. A. Broyles, M.D., Bethany.
F. J. McCoy, M.D., Kansas City.

REFERENCE COMMITTEE ON REPORTS OF OFFICERS

Roy W. Pearse, Jr., M.D., Nevada, Chairman.
Jerome I. Simon, M.D., St. Louis.
C. H. Lewellen, M.D., Louisiana.
John P. Ferguson, M.D., Springfield.
Joseph C. Williams, Jr., M.D., Kansas City.

REFERENCE COMMITTEE ON MEDICAL EDUCATION AND PUBLIC WELFARE

James P. Murphy, M.D., St. Louis, Chairman.
M. G. Menne, M.D., Ironton.
Kenneth Glover, M.D., Mount Vernon.
William H. Bailey, M.D., St. Louis.
Howard Carter, M.D., Hamilton.

Richard H. Kiene, M.D., Kansas City, Chairman of the Committee on Scientific and Postgraduate Work, made announcements concerning the program and welcomed the delegates.

Carl F. Vohs, M.D., St. Louis, gave the President's Message as follows:

PRESIDENT'S MESSAGE

Mr. Speaker, Members of the House of Delegates: Never in all the years in which I have been active in the affairs of organized medicine have I seen a year that was busier than the one just past. The agenda was heavy not only in terms of the sheer volume of business; it was heavy, too, in terms of the seriousness of many of the matters before us—in terms of their long-range implications for the practice of medicine.

In my talk to this House last year, as incoming President, I emphasized my belief that the policies of the Association on issues of pressing and critical importance must be formed in accord with the democratically expressed wishes of an informed membership. I quote from the text of that talk: "I have not a formal program of action to present to you at this time. . . . It will take the collective intelligence, consideration and action of all of us to set the direction which will be best to follow." I added that I had definite personal opinions on many of the issues confronting us. And I expressed some of those opinions in the balance of my talk.

Now that the year is past, certain of my recommendations have been adopted; others have been rejected. But, in every instance, the policy that has prevailed has been the one that clearly appeared to reflect the wishes of the membership.

Three major matters were acted on one way or another during the year. They will be reviewed in detail in formal reports that will be brought before you. I should like to comment on each briefly, however, with a view to stressing again how important I believe it is that this Association—when the seriousness of the

The program chairman made announcements and welcomed the Delegates.

issue warrants—go directly to its members for guidance in the formulation of major policies. I do not wish, at this point, to be misunderstood. Obviously it would not be possible to have any kind of effective organization if duly constituted officers and councilors were reluctant to assume the full responsibilities of their offices and to exercise the authority entrusted to them. I do not mean at all that we must go running to the membership for advance approval of everything that is undertaken. I do not suggest we can do without leadership.

But I do mean to say that—when an issue of fundamental importance confronts us—we ought not to make a basic policy decision without being sure of the wishes of all the members. In a situation like this, it is not enough merely to be technically and constitutionally correct. It is not enough for the officers and Council to decide policy simply because they have the right and responsibility to do so. In such cases it is far best not to take it for granted that the officers, the councilors, or even the House of Delegates, are always completely representative of the views of their constituents. Experience makes it clear that medical men as individuals and as groups have strongly held emphatic opinions on issues they rightly conceive to go to the heart of their personal and professional interests.

It is essential that every voice be heard before major policy is decided. As I said in my talk to you last year, no official group or body of the Association "ought to adopt a course of action which the membership will not support." I think the rule might go further. I think —except in the most unusual circumstances—no course of important action should be approved if a substantial minority group is vigorously in opposition.

The problems that confront us are grave. They will become more serious. It is essential that we do nothing that will divide our ranks or hurt our unity. This poses a responsibility not only for the officials of the Association; it imposes as well an obligation on all members and groups of members to urge their viewpoints with moderation and with regard for the necessity of compromise and accommodation in areas in which complete agreement of all doctors may not be possible.

So much for this personal expression of opinion as to our ways of proceeding. I expressed the same view a year ago. How was this view reflected in our program during the year of my presidency? As I said earlier, three major matters were acted upon in the course of the year. How well did we succeed in our effort to determine the real wishes of the profession and to pursue policies in accord with these wishes?

First came the decision that had to be made regarding legislation for a single state board of licensure. Our legislative proposal to solve this problem died, as you recall, in the 1955 legislature. In my talk to you last year I stated there was reason to believe that there had been a good deal less than complete support of MSMA members for the measure, and that this had something to do with its failure. I stressed the fact that we needed to find out exactly how doctors felt about the single license idea.

Accordingly a full and factual statement of the elements of the proposal, its background and the considerations for and against it was prepared and mailed to the entire membership. From the 3,750 letters mailed, we received back 1,955 filled-in post card responses. This return of 52.1 per cent was in itself remarkable. It showed that doctors were deeply interested in the problem. Of those who responded, 90.9 per cent expressed their approval of the proposed legislation, and 56 per cent of those responding—that is, 1,096 individual doctors—expressed willingness personally to work to help secure the proposed bill's passage.

This, then, was a clear-cut mandate. We knew what the doctors wanted. As things turned out—you will learn from the report of the Council—we were not able to proceed in this legislative session because of unforeseen developments which made it appear we could not hope to succeed if we went ahead as planned.

This House will now have to consider what our continuing policy should be in the light of the new circumstances. But I have explained last year's procedure at some length because it illustrates how we went about getting the fundamental agreement of the profession on a matter of major policy.

The President gave his Message.

Next on the year's calendar came the task of implementing the directive of the House of Delegates to the Council and to Missouri Medical Service that steps be taken to draft the elements of a service benefits program to be offered by St. Louis Blue Shield. You will have a report on this from the Council, but I wish to touch on the matter as a classic illustration of the principle of MSMA policy-making that I have been advocating. That policy, in a nutshell, is that we must be very certain—before we act on any major matter—that the member physicians really know what it is all about and that they are in general agreement on it.

Here, in brief summary, is what happened in the matter of a service program for St. Louis Blue Shield. At last year's House of Delegates, the Council and I as incoming President recommended that the service idea be approved in principle and that the Blue Shield staff be directed to get to work on such a program, details of which were then to be submitted for discussion and criticism of constituent societies.

This way of proceeding had the built-in safeguard that final decision on our policy was reserved until the views of constituent societies could be fully determined. It is a good thing provision was made for such a safeguard.

No sooner had the study of the service program got underway and discussion of its elements started with a representative advisory committee of physicians than it became apparent that a number of doctors in the St. Louis and St. Louis County medical societies had deep-seated objections to the whole idea of Blue Shield service benefits. Their opposition was on the ground of principle—even though the House of Delegates had approved the principle in question.

Here we may observe how careful we must be in these basic matters—how we may not automatically operate on the assumption that the House of Delegates in every instance completely represents the full views of every major group of constituents.

In any case, it quickly became apparent that the whole idea of service was repugnant to enough doctors as to make it unreasonable and, indeed, arbitrary to do anything more about it. In consequence, you will later in this session receive a report from St. Louis Blue Shield.

If a Blue Shield plan is to be, as it must be, the doctors' own plan, it should not do something that a strongly organized and highly vocal group of doctors do not want done. The merits of the matter are not involved in this decision. The only practical consideration is that Blue Shield has got to do what the doctors want. That is one of the underlying ideas of the whole program.

The third development of the year I wish to discuss in this context is the decision the Association made to join with the medical societies of forty-six other states in acceding to a request of the Department of Defense to implement Public Law 569 by entering into a contract with the government to provide care for dependents of members of the uniformed services of the United States. This is not the place to go into the details of the program. You will have a full report of that in the course of the session. I do want to touch, however, on the means by which MSMA came to its policy decision.

After the Council had studied and reviewed the matter, it was decided again to take a special poll of the entire membership as a guide for formulating MSMA policy. A complete description of the program and the proposed roles of MSMA and of individual physicians was prepared and mailed to the membership. There was a 40 per cent return. This is a high response to a mail inquiry. Of those responding, 87 per cent voted for the proposal that MSMA should go forward and negotiate a contract with the Department of Defense. Only 13 per cent of the responding doctors were opposed. It appeared MSMA had a clear-cut mandate for going ahead, and this was the course followed by the Council.

I am aware of the fact that some of the opposing doctors feel strongly about this matter. I expect you may hear from them before the session is over.

It is not for me—as a retiring President—to discuss the merits of the case. But I do wish to emphasize that a thorough and fair effort was made to determine the wishes of the profession throughout Missouri, and the policy of your Association followed the mandate expressed by the doctors themselves.

So much for the partial review of my year as your President. I have two basic ideas to leave with you.

The first is that succeeding administrations will do well to follow the pattern of the last year in doing everything possible to bring the facts of policy issues directly to the members of the profession. Beyond this, I believe it important for final decisions, insofar as possible, to be deferred until there is moral certainty that the facts have been understood and the wishes of the doctors have been clearly expressed.

The second idea I wish to stress is the vital importance of unity and good feeling within our ranks. It is inevitable that there will be dissenters from every policy. It is inevitable and healthy that every point of view should be expressed and debated with the fullest freedom. It is, however, imperative that the mechanics of our decision making and the underlying fellowship and unity of our profession should be strong enough to hold us loyally together when the debate is ended. Once the medical profession in Missouri comes fairly and squarely to a position—I believe and trust we shall find we have confidence enough in the principles of democratic and representative institutions to close ranks, to stand together and to be the unified force we must be in the society of Missouri and the nation. If our force is less than this—if our unity is broken—if we cannot have discipline enough to hang together—we shall, in the words of Benjamin Franklin, most assuredly hang separately.

Gentlemen, for the honor you have given me in making me your President I thank you. To all of you who have served as officers, councilors and committee members in the last year my deep appreciation. I want also to thank the loyal and devoted members of our staff. And finally—to every doctor in this Association—at the end of a long and sometimes strenuous series of years of involvement one way or another in the affairs of Missouri medicine—I wish to say it has all been worth it—richly worth it. There is no finer body of men anywhere. I am proud to have had the opportunity of being your instrument in undertakings aimed at the good of our beloved profession and aimed equally at the service of the public.

Thank you.

The Speaker referred the President's Message to the Reference Committee on Reports of Officers.

Walter S. Sewell, M.D., Springfield, presented the Recommendations of the President-Elect as follows:

RECOMMENDATIONS OF THE PRESIDENT-ELECT

I know you are wondering what I am going to say. I have been wondering the same thing. And, as a preface to saying something about the future, I have decided first to take a look at the past.

There is a lot of interesting medical history in our country. The Missouri State Medical Association itself was formed more than 100 years ago.

In earlier years, doctors of medicine did not have the advantages of the fine medical schools, hospitals, equipment and drugs that we have today. Their education was limited. Admission requirements to medical schools were virtually non-existent, and many students were woefully inadequate in their preparation for professional education, many not having the equivalent of even a high school education.

For a long period, medical education in the United States was a rather haphazard procedure. Most medical training was secured by means of apprenticeship, and this persisted well into the Nineteenth Century, in spite of the early establishment of university connected schools of medicine in New York, Boston, Philadelphia and New Haven. Such schools provided a reasonably adequate professional education, though their course of training was brief, about one year. Many other medical schools during that century were proprietary and conducted chiefly for profit, and still others were little more than diploma mills.

Transportation, especially in rural areas, was poor. Communications were bad. Someone would have to walk, ride horseback or use a horse and buggy to go to the doctor's home to inform him that he was needed to see the sick. The doctor had to use the same modes of transportation to go see his patient. Many times this would be several miles. If anyone else was sick in the neighborhood, he would see them too before returning to his home. Sometimes it was necessary for him to stay two or three days. He would stay until his patient's critical illness was over. He was well taken care of while there. He was offered the choicest foods and given the best bed to sleep on. When he was ready to depart, he might be paid with a sack of potatoes, a dozen eggs, a pig or a cow. Little money changed hands. Doctors worked long hours, and few seem to have complained about the hardships they went through.

The doctor of that day was much interested in his local community. He was often a leader in community projects—mayor of the town, peace officer—as well as confidant in personal and family affairs. The people loved him, sometimes almost to the point of hero worship. He dedicated himself to taking care of the sick. His monetary gain was little. Many a doctor died a pauper. In general the doctor was a religious fellow. His religion was likely to be very real to him. He loved his Creator, believed in Him, and many, many times called upon Him for help and guidance. Those doctors never worried about socialized medicine. They worried about sick people and their welfare.

Times have changed over these 100 years. Medical schools and clinics in the United States are now the best in the world. Our hospitals are well built, equipped and managed. Our modern drugs and their uses are far beyond the fondest dreams of earlier days. Transportation and communication are no problem at all.

We have increased the life span many years. Operations are performed today, and many persons cured by drugs and other methods which only a few years ago we should have thought impossible. Now, if doctors should ever expect to be praised and have the good will of the people, it should be at the present time. This is not true. We have lost something. We find ourselves being criticized by magazine articles, newspapers, and even in general conversation.

Why this change, especially in the last quarter century? Has our attitude toward our patient changed? Do we consider him just another number instead of an individual patient? Do we take time to tell the patient what we are going to do and the reason for doing it? Or, do we say, "You would not understand, just trust me."

The President-Elect gave his Recommendations.

Do we take as much interest in local projects and civic affairs as we should? Do we just try to lay down the law, or do we consult with community and public leaders about health care and how it can be made better with their help? Do we tell them why children should have the various vaccinations? Do we tell them why all should be vaccinated for smallpox and should have examinations as precautions against tuberculosis and cancer? Do we tell patients, if they cannot afford to pay for the service, that this has been arranged, and that they should not hesitate to take advantage of it —that we are interested in their welfare and not the monetary gain? Or do we say that it is not our business to give service except on our own terms? I believe you ought to think about this—do we, whenever anyone—lay person or physician—suggests a plan to somehow work together to help people in trouble—do we, no matter what it is, say, "that is socialized medicine, and I'm agin it?"

Then, when the question is asked—"Doctor, you don't believe in many of the propositions we have proposed. What is your solution?" Is not our answer, "I have none, I'm satisfied the way things are now?"

Ever since I graduated in medicine I have heard the word socialized medicine. It scared me then and it scares me now—because now I think the wolf may actually be at my door.

I cannot answer all the above questions. But let us take a look at a few typical projects we have been confronted with in the past and at our reactions.

Some years ago it was proposed to build a cancer hospital in Missouri for the indigent. This proposition was referred to medical societies for their reactions and advice. Our local medical society discussed this proposition for one entire evening. Everyone present discussed it, and only two members were in favor of it. A vote was taken—all were against it except two. A motion was made to make it unanimous, and it carried. The question was asked, "Why are you against building a hospital for diagnosis and treatment of cancer for the indigent?" The answer was, "It is socialized medicine, and they will soon be treating everybody and everything free, and we won't have any patients." Then the question was asked, "Doctor, what do you propose? How do you expect to take care of these poor people who want to live and be happy the same as anyone?" The answer—"I have no solution." So far as I know, no solution was offered by our local society, and I am of the opinion that little thought was given to it.

The cancer hospital was built. The fine work it has done should be praised. I believe I can safely say that there is not one doctor in our county medical society who would ever think or suggest that this hospital should discontinue its activity.

Mount Vernon Sanatorium wanted to expand—get more beds and a better outpatient department—so that more tuberculosis patients could be examined and treated. The cry from our profession was, "No. That is socialized medicine. They will be examining and treating patients that we should see." But we did not offer a plan of our own to help.

In the nineteen forties the Blue Shield plan was formed. Through its program part of the surgical and medical fee would be paid. Again, this was unpopular with many in the profession. Doctors cried out again—"It is leading up to socialized medicine." And yet this was a voluntary thing—doctors and other people working together to help people in trouble to pay part of the cost of care. There is no government in it—instead Blue Shield has likely kept the government out. And it is one of the few positive things we have done.

As you know, I shall be serving next year not only as President of MSMA but also as president of Missouri Medical Service, the Blue Shield plan sponsored by our Association to serve most of Missouri. This is not the place to discuss the Blue Shield program or the problems of the plan, but I do want to emphasize my fundamental beliefs about the Blue Shield principle in general and about our plan in particular.

First, the job of Blue Shield is to make voluntary, prepayment health protection available to the largest possible number of people who need and want it. Blue Shield is not in the insurance business. It is in the business of providing a needed community service.

Second, it is up to doctors to help make the voluntary principle work by supporting their own Blue Shield program.

Third, there is no conflict of interest between the needs of the public and the interests of the medical profession in this matter. The responsibility of Blue Shield leadership is to serve both the profession and the public. It will be the continuing aim of our Blue Shield plan so to serve.

Now to touch on a recent development of nationwide interest to our profession. In 1956 the Public Law 569, the Military Dependent Medical Care Act, was passed by the United States Congress and signed by the President of the United States. Some doctors were opposed to this idea. The President said, in part, when he signed this bill "I have today approved with great satisfaction the directive under which the Military Dependents Medical Care Program will operate, beginning December 7, 1956. Prior to this time at least 40 per cent of our service families were unable to receive adequate medical care from the Government. This important improvement assures hospital care at all times to the wives and children of active duty personnel. It removes one of the greatest sources of worry to our servicemen and servicewomen around the world. . . .

"I have been personally interested in this important program since its inception. I feel strongly that this important measure will have a far-reaching effect on service morale at home or on our widely flung posts, ships and bases around the world and thus effectively strengthens the defense of our country."

Public Law 569 is now in force in Missouri. A fee schedule has been bargained for—negotiated by the doctors of Missouri themselves—and the Missouri State Medical Association, by contract with the government, has a hand in the operation of the law. I believe we acted wisely—along with all other state medical associations but two—in cooperating with the government to set up this program.

Now, do not misunderstand me. There is no doubt but that this new federal law sets a precedent—one that holds dangers for medicine. But these dangers would be multiplied many times if we had not retained a voice in the matter.

It is a danger, for example, that attempts will be made to bring more and more people into programs by which they get medical care on a government directed basis. If that were carried far enough, we should lose what you and I know are the priceless benefits of freedom in the field of medicine, not only for the profession but, even more importantly, for the public.

Therefore, clearly, I am not suggesting that medicine can afford to sit back and let any present trend of events simply run its course. But I do say that we must be something more than just "aginners." We must always be ready to take a new initiative, as we did in the case of Blue Shield, in finding and working to win acceptance for new ways of making better medical care available to all the people on a basis that is economically sound and humanly fair. It is up to us to distinguish between the things that are socialized medicine and the things that are not, and to take the lead in finding ways by which we can work together with all other interested groups in society to find better ways of caring for people in trouble.

We have to come to think of the public as a whole more in the same terms we think about our individual patients. There is never any selfishness in that. We just want to get these people well. I know that is exactly what we want medicine to stand for as a progressive force in modern day society. That is why I say we are not going to be "aginners."

We are going to work hard and earnestly with the local people, the states and the nation. We are going to regain the love, goodwill and prestige among our patients. We are again going to be loved not only by our individual patient but by all the people.

We are going to practice better medicine than ever before.

Here in Missouri we are going to regain the confidence of the people to the extent that they will establish a single licensure bill—so that anyone who is licensed as a physician and surgeon will have a high minimum standard of training. They will be glad to help us enact such a law, because they will know we are sincere and that it is for their good and welfare.

We will have a new system of medico-legal examiners to replace Missouri's antiquated coroner system.

We will have a Medical Advisory Committee, made up of qualified physicians, for the Division of Mental Diseases.

We will have a four year state medical school which will be second to none.

We are all going to take a more active part in our local medical society, our State Medical Association and the A.M.A.

We are going to regain many of the privileges we have lost and gain many more.

Your prestige and influence will grow, provided you put your shoulder to the wheel and work. Regardless of how small a job you are given to do, you are going to do it well, and not only will you be rewarded, but the whole medical profession will benefit.

We are going to help and advise in the planning of things pertaining to health and not have the laity or the government do so and then tell us what to do.

I have the utmost confidence in our present generation of doctors. We are bound to win, we cannot lose, if we all will work and work together.

Thank you.

The Speaker referred the Recommendations of the President-Elect to the Reference Committee on Reports of Officers.

The report of the Secretary, E. Royse Bohrer, M.D., Jefferson City, follows:

REPORT OF THE SECRETARY

On December 31, 1956, the official membership of the Association was as follows:

Status of Membership

Number of Members, January 1, 1956	3,723
New Members	152
Members Reinstated	1
Total	3,876
Members Dropped	30
Members Deceased	71
Members Transferred	57
Members Resigned	2
Total	160
Number of Members, December 31, 1956	3,716

The Committee on Nominations, which is appointed by the President from the House of Delegates, must submit nominations for the following officers:

Three Vice Presidents to fill the expired terms of Victor E. Scherman, M.D., St. Louis; R. E. Breuer, M.D., Newburg, and W. J. Shaw, M.D., Fayette.

Two Delegates and corresponding Alternates to the American Medical Association to fill the vacancies created by the expiration on December 31, 1957, of the terms of Joseph C. Peden, Sr., M.D., St. Louis, Alternate, Walter Baumgarten, M.D., St. Louis; and F. L. Feierabend, M.D., Kansas City, Alternate, Rolla B. Wray, M.D., Nevada.

The terms (two years) of the Councilors of the even numbered districts expire this year: W. F. Francka, M.D., Hannibal, Second District; Joseph C. Creech, M.D., Troy, Fourth District; C. G. Stauffacher, M.D., Sedalia, Sixth District; B. E. DeTar, M.D., Joplin, Eighth District; Ben M. Bull, M.D., Ironton, Tenth District. The term of the Councilor of the Fifth District is to be filled by the Delegates from that District since the Council appointed Byron M. Stuart, M.D., Boonville, to fill a vacancy until the Annual Session. Delegates from these districts shall meet prior to the last day of the meeting and elect the Councilor for their District. The election shall be certified to the House of Delegates on a prescribed form which will be furnished. Lists of Delegates from the various districts will be available to the Councilors and may be checked for those present at the Registration Desk at the Session.

The Annual Session will meet for four days, beginning Sunday, March 31, at 1:30 p.m., with a session of the House of Delegates, and closing Wednesday afternoon, April 3, with a final session of the House. The House will also meet on Monday, April 1, at 4:00 p.m. The sessions of the House will be held in the Little Theater of the Municipal Auditorium. Registration will be open on Sunday from 12:30 until 2:30 p.m., and from 8:00 a.m. until 5:00 p.m. on Monday and Tuesday and from 8:00 a.m. until 12:00 noon on Wednesday.

The Annual Banquet in Honor of Past Presidents will be held on Tuesday evening, April 2, 7:30 p.m., in the Grand Ballroom at Hotel Muehlebach.

E. Royse Bohrer, Secretary.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Executive Secretary, Mr. Tom R. O'Brien, follows:

REPORT OF THE EXECUTIVE SECRETARY

The reports contained in this booklet describe the activities of the Council and standing and special committees of the Association. It is hard to single out any specific action which is especially noteworthy. However, the program "Medicare" and Public Law 880, outlined in the report of the Committee on Medical Economics, received more than their fair share of consideration from the Committee, Council, officers and staff of the Association. The willingness of so many members to devote their time to problems affecting medicine and the public welfare is indeed a stimulation to the staff.

I wish to express my thanks to all members of the staff for their ever ready help during 1956. All of them are devoted to the interests of the Association and deserve the thanks of the members.

Tom R. O'Brien, Executive Secretary.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Treasurer, Jerome I. Simon, M.D., St. Louis, follows:

REPORT OF THE TREASUER

The report of the Treasurer is covered in the Financial Statement of the Association for 1956 which appeared in the March issue of Missouri Medicine. Since Delegates have had that issue of the Journal of the Missouri State Medical Association, the report is not repeated in these reports.

Jerome I. Simon, Treasurer.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Scientific and Postgraduate Work, Richard H. Kiene, M.D., Kansas City, Chairman, follows:

REPORT OF THE COMMITTEE ON SCIENTIFIC AND POSTGRADUATE WORK

One facet of the work of the Committee, which is highlighted by the Annual Session, is the preparation of the scientific program at the Session. The Committee feels that the program this year has a great deal to offer the membership. The formal presentations are all by men well qualified, and most of them quite well known, in their fields. The Committee, feeling that an Annual Session should furnish definite instruction, arranged the Instruction Courses for the Tuesday early morning session. Basic subjects of general interest were chosen, and it is hoped that the members will take advantage of this opportunity. The Panel on Pediatrics, the Clinical Pathologic Conference and the Panel on the Multiple Injury Patient, the Committee feels will be of value. The Committee hopes that the program is as valuable to the members as the Committee has felt it will be.

The Committee is pleased to report that numerous county medical societies over the state have adopted your Committee's recommendation that society programs be planned and scheduled months in advance of meeting dates. Some of these societies have reported excellent results from this procedure. They find it is easier to secure speakers, the programs are better coordinated as to subject matter, papers given by the speakers are better prepared and delivered, and the programs are better attended and received. When the Committee has been called upon to furnish programs for local societies, it has likewise found the fulfilling of such requests much easier when sufficient time is given.

The Committee notes with interest and satisfaction the increasing postgraduate activities of the outside county medical societies and particularly those activities of the hyphenated societies. In the latter instances many doctors are now regularly attending their local society meeting while before hyphenation their county society had been inactive and held few, if any, meetings.

During the last year the Committee, through the headquarters office, has worked in cooperative harmony with the Education Committee of the Missouri Academy of General Practice and the postgraduate departments of Missouri University, St. Louis University and Washington University Medical Schools in developing and furnishing postgraduate programs for the physicians over the entire state.

This cooperative endeavor has been helpful in holding to a minimum duplications and conflicts of meetings throughout Missouri.

The Committee again was pleased to have the opportunity to cooperate during the year with the Missouri Division of Health and the Cardiovascular Section of St. Louis University Medical School to present special heart programs for physicians throughout the state.

The Postgraduate Committee of the University of Missouri Medical School has furnished the Committee with a list of faculty member speakers and subjects available for scheduling at county medical society meetings. A good number of these speakers was scheduled by the Committee on society programs this last fall and winter.

The Committee compliments those particular county societies which have held joint meetings with other professional groups such as lawyers, dentists and pharmacists. Some of the societies which did this last year were Buchanan County, Greene County, Jasper County and St. Louis City.

Other societies sponsored special meetings such as Clay County Society, "Clinical Conference"; Cape Girardeau County Society, "Southeast Missouri Cancer Conference," and Greene County Society, "Ozark Empire Cancer Conference."

The Committee takes this opportunity to express its thanks and appreciation to all those physicians who have appeared on the many scientific protgraduate programs held over the state this past year.

Richard H. Kiene, Chairman,
M. Pinson Neal,
Michael S. Wepprich,
Roy W. Pearse, Jr.,
Alphonse McMahon,
Frank R. Daley,
John R. McDaniel,
Charles F. Wilson,
Hector W. Benoit,
Eugene M. Bricker,
Charles E. Martin,
Wyeth Hamlin.

The Speaker referred this report to the Reference Committee on Medical Education and Public Welfare.

The report of the Committee on Publication, Charles R. Doyle, M.D., St. Louis, follows:

REPORT OF THE COMMITTEE ON PUBLICATION

January 1, 1956, to December 31, 1956

The 53rd volume of Missouri Medicine was completed with the December 1956 issue. During 1956 there were published thirty-nine scientific articles, six postgraduate reviews, five case reports, eight special articles, twenty-one editorials, eleven "Curiosa et Trivia," nine "Capsule Clinics," ten articles from the Missouri Academy of General Practice, eleven articles on the Woman's Auxiliary, eleven "Missouri Medicine in Review," three articles on Blue Cross-Blue Shield, eleven President's pages, five articles from the State Board of Medical Examiners, eleven articles by the Field Secretary, two hundred twenty-five news items, fifty-nine death notices, listings of one hundred thirty-nine new members, eighty-eight Councilor District News articles, eleven articles from each of the medical schools, eleven articles on organization activities, thirty-two miscellaneous articles, four articles on legislation, nineteen book reviews, minutes of the House of Delegates and a roster. There were 562 pages of reading material, 574 pages of advertising and 34 pages of inserts.

Advertising in Missouri Medicine from January 1, 1956, to December 31, 1956, earned $34,014.12. Subscriptions of nonmembers amounted to $174.10, making $34,188.22 earned by the publication. The cost of production (printing and illustrations) was $26,288.40.

The Committee wishes to express appreciation to the Contributing Editors for their assistance, and to members who have made contributions of scientific material to Missouri Medicine.

Charles R. Doyle, Chairman,
Richard H. Kiene,
C. G. Stauffacher,
R. O. Muether,
Ben M. Bull.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Defense, Charles E. Hyndman, M.D., St. Louis, follows:

REPORT OF THE COMMITTEE ON DEFENSE

Cases pending, March 1, 1956	3
New cases during the year	0
Cases settled during the year	1
Cases pending, March 1, 1957	2

C. E. Hyndman, Chairman,
Joseph G. Webster,
Roland S. Kieffer,
L. Paul Forgrave,
James D. Horton.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Public Policy and Public Relations, Jerome I. Simon, M.D., St. Louis, follows:

REPORT OF THE COMMITTEE ON PUBLIC POLICY AND PUBLIC RELATIONS

During the year, the Committee, through contacts of its chairman and various members with the officers and Council of the Association, has continued to be concerned with the problem of licensure in the state.

In connection with this, a survey of the membership was carried out in September to determine the support a single license bill might receive from the profession if it were to be reintroduced.

Results of this poll showed that a large majority of the physicians voting are in favor of the single license proposal:

Cards mailed	3,750		
Cards returned	1,995		
Per cent returned	52.1		
Physicians favoring the single license proposal		682	34.9%
Physicians favoring the proposal and indicating definite and active support if it is reactivated		1,096	56.0%
Total for		1,778	90.9%
Physicians opposed		155	7.9%

(22 ballots—1.1%—were impossible to classify)

With this show of interest, the Council, members of the Committee and staff of the Association have given the matter intensive study, including the consideration of subsequent events. A complete report on the licensure situation will be found in the report of the Council.

Members of this Committee, along with the Committee on Medical Economics, have also been concerned with the important policy and public relations aspects of the federal Medicare law. A number of letters and other information about the law were sent to the membership, and the provisions of the proposed contracts were outlined. A poll was then taken to determine the wishes of physicians as to whether or not the Association should arrange contracts with the government in implementation of the law.

Results of the study showed:

Ballots returned	1,476	
Physicians favoring proceeding with arrangements	1,228	87.1%
Physicians opposing proceeding	190	12.9%

Further information on the Medicare program is contained in the reports of the Committee on Medical Economics and the Council.

In addition to these special activities, important day-to-day public relations and informational work was carried on throughout the year. Details of this work continued to be handled by our public relations counsel under the direction of the Executive Secretary, and the services of the agency were made increasingly available to the officers and committees of the Association.

Jerome I. Simon, Chairman,
Thompson E. Potter,
W. D. Chute,
Russell J. Crider,
Byron M. Stuart,
Rolla B. Wray,
Harry C. Lapp,
O. B. Crawford,
H. W. Carrington,
J. J. Bredall.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Medical Education and Hospitals, Ralph R. Coffey, M.D., Kansas City, Chairman, follows:

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

There have been no specific assignments of the Committee this year other than the request of the University of Missouri School of Medicine for aid in selecting a group of general practitioners in rural communities to serve as preceptors for selected students in their fourth year of training. This program was inaugurated by the Medical School in order to educate the students in a way of medical life and to acquaint them with some of the advantages of medical practice in rural communities.

In informal conversation with Dean Roscoe Pullen, the Committee believes this program has been fairly successful and will probably be continued in the next year. The chairman of the Committee has made three visits to the Medical School in Columbia, one of which was for the formal opening of the school and hospital. There have been no further problems of the medical school referred to this Committee.

Members of the Missouri State Medical Association who have served as preceptors to date are: Drs. J. H. Trolinger, Jackson; P. V. Siegel, Smithton; Kenneth Glover, Mount Vernon; A. E. Spelman, Smithville; Doyle C. McCraw, Bolivar; J. Wyeth Hamlin, Palmyra; Richard R. Grayson, Perryville.

The Committee is aware of the excellent work of the Woman's Auxiliary in recruiting ancillary personnel. Their work in encouraging young people to enter training for a health career is sincerely appreciated by the Committee. The Committee individually has been concerned about the personnel shortages in hospitals in general in the state, particularly as to the shortage of nurses, x-ray and laboratory technicians inasmuch as more and more community hospitals are absorbing the supply of nurses and technicians being trained in the larger hospital centers, and an apparent shrinkage in the number of applicants for training in these various schools. It is felt that doctors practicing in the State of Missouri could help in the recruitment of young people to enter training in these various professions. The training of practical nurses in larger numbers also seems advisable to further supply hospitals with nurses at this level of training and to serve as aides.

As supplementary to the report, the following letter from Roscoe L. Pullen, M.D., Dean, School of Medicine, University of Missouri, is included: "On behalf of the faculty and the administration of the University of Missouri School of Medicine, our office wishes to express its appreciation to you and to all members of the Committee on Medical Education and Hospitals of the Missouri State Medical Association for your wholehearted support and cooperation in the development of the Preceptorship Program at the University. Nine of our twenty-three senior medical students, during the current academic session, have selected the Preceptorship in General Practice and have been assigned to Preceptors recommended to this office by the Missouri State Medical Association for periods of training averaging 5½ weeks of intensive general practice in the rural communities of Missouri. In the opinion of the faculty, this has been a most successful and worthwhile program. It has enabled our students to obtain additional training in certain areas, such as minor surgery, acute injuries, acute diseases and obstetrics beyond that available in the University Hospital, and it has brought to the individual student a keen understanding and insight into the art of the practice of medicine. The students have likewise liked the program very much indeed and I feel confident that an increasing number will elect the Preceptorship Program during the years to come. Thanking you again for your assistance in this development and with kindest personal regards."

RALPH R. COFFEY, Chairman,
HARRY K. PURCELL,
KENNETH GLOVER,
W. J. FERGUSON,
GEORGE J. L. WULFF,
JOHN J. MODLIN.

The Speaker referred this report to the Reference Committee on Medical Education and Public Welfare.

The report of the Committee on Cancer, Joseph L. Fisher, M.D., St. Joseph, Chairman, follows:

REPORT OF THE COMMITTEE ON CANCER

Some of the objectives of the Committee on Cancer of the Missouri State Medical Association have been to develop, improve and further the educational programs in the field of cancer, to develop professional standards for cancer programs, to confer with and support other agencies in educational programs relative to cancer control.

The cancer detection form, which was developed by the State Cancer Committee and approved by the Council and House of Delegates, was favorably received by the membership of the Missouri State Medical Association as well as the general public. As an example, the Missouri Grand Chapter of the Order of the Eastern Star circularized during 1956 their 552 local chapters asking them to adopt a health education project for the year which would include an annual cancer detection examination in their family physician's office. The interest manifested by the Eastern Star has spread to other clubs and organizations and was considerably amplified by the fact that the American Cancer Society adopted as its slogan for 1956 "Fight Cancer With a Checkup and a Check." This development has been welcome since there has been overwhelming medical support for the position of favoring periodic examinations as a technic for discovering early cancer.

The Committee on Cancer reported on meetings during the year.

It is sincerely believed that this project offers an unusual public relations opportunity for the profession. It will serve to counteract the criticism which is sometimes heard that many doctors do not seem to be interested in giving adequate physical examinations. At the same time it will reaffirm cooperative interest in the total cancer problem which is of such paramount importance in the public mind.

It has been reported to the Committee that the "patient history" side of the detection form has saved the examining physician considerable time. The "physical examination" side has served to prepare the mind of the patient for the necessary procedures to be performed in order that a complete examination be made.

Cancer control needs, as well as the services and facilities being used throughout the state, were reviewed and discussed. The need for further thinking and exploration of medical methods and practices was recognized.

A subcommittee of the Committee was appointed, with Dr. E. Kip Robinson, Kansas City, serving as its chairman, to study the problem of needed diagnostic clinics throughout the state as well as the standards of their operation and organization. The detailed recommendations have been filed in the minutes of the affairs of the Committee. These recommendations follow certain basic principles which have been set forth by the Cancer Committee of the American College of surgeons.

A subcommittee on tumor registries, chairmanned by Dr. Charles Lockhart, Springfield, reported on tumor registries operating in several states where both central and local registries were in use. After due deliberation it was decided by the Committee to encourage the establishment of registries in local hospitals and that the idea of central or statewide registry be further studied and recommendations delayed until such time as additional information regarding local hospital registries be obtained.

The Committee has requested a half page in MISSOURI MEDICINE as an avenue through which sound valuable practical professional cancer information might be brought to the attention of the Missouri general practitioner.

The Committee, with the cooperation of the Missouri Division of the American Cancer Society as well as the State Board of Health, is distributing to all Missouri physicians *CA*, a bulletin of cancer progress. The committee also adopted the project of mailing quarterly *Cancer News* to all members of the Missouri State Medical Association.

The Committee has continued to stress the need for professional education and has cooperated with the Missouri Division of the American Cancer Society in furnishing speakers for the following medical meetings:

A. Southeast Missouri Cancer Teaching Day, Cape Girardeau.

B. Ozark Empire Cancer Conference, Springfield.

C. The State Meeting of the Missouri Academy of General Practice.

D. The Homer G. Phillips Intern Alumni Association, St. Louis.

The Committee has assisted in making available professional films which can be secured through the state office of the American Cancer Society. There are 20 kineoscopic films as well as seven additional films devoted to diagnostic procedures.

The Committee has assisted in the distribution of a special issue of CA on oral cancer to dentists and nurses.

The Committee has assisted in obtaining grants to the following clinics:

1. Southeast Missouri Diagnostic Clinic, Cape Girardeau.
2. Southwest Regional Diagnostic Clinic, Springfield.
3. Homer G. Phillips Hospital Tumor Clinic, St. Louis.
4. St. Louis University Tumor Clinic, St. Louis.
5. Washington University Tumor Clinic.
6. Kansas City General Hospital Tumor Clinic.
7. Kansas City Detection Center.

The Committee has also stimulated the distribution of colostomy booklets as well as the booklet, "Cancer Detection in the Physician's Office."

The matter of the possible establishment of a statewide cytological service for the study of cervical smears was discussed. It is the opinion of the Committee that a state provided cytological service for the study of cervical smears would be of benefit in the over-all cancer control program. This problem has been discussed with the Chairman of the Committee on Laboratory Medicine for additional consideration and implementation.

The Committee voted approval of Resolution 15 passed by the House of Delegates of the A.M.A. in December 1955 and concurred upon by the Board of Trustees of the A.M.A. in February 1956.

The Committee recognizes that the State Medical Association has a moral responsibility for the collection and evalution of scientific and clinical evidence on claims for the diagnosis and treatment of cancer in this state. Therefore the Committee approved the recommendation of the A.M.A. to establish a commission or committee of the Missouri State Medical Association and it be authorized to assume the responsibility as outlined in Resolution 15 passed by the House of Delegates of the A.M.A. However, this Committee would like to point out this responsibility should be shared by the proper state governmental agency and should be implemented and activated only after proper legal advice and counsel has been secured.

Joseph L. Fisher, Chairman,
George A. Carroll,
Marvin L. Napper,
Thomas M. Martin,
E. Kip Robinson,
George O. Miles,
Frederick J. McCoy,
C. W. Meinershagen,
Byron E. Watts,
Charles E. Lockhart,
John J. Modlin,
A. N. Arneson.

The Speaker referred this report to the Reference Committee on Medical Education and Public Welfare.

The report of the Committee on Medical Economics, A. P. Rowlette, M.D., Moberly, Chairman, follows:

REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS

The Committee on Medical Economics has had an especially active year since the last session of the House of Delegates, dealing with problems of the Federal Medicare program and the recent amendments to the Social Security law providing payments to vendors of medical care to the indigent.

Throughout the year, information about the Medicare program has been made available to the membership. Articles were published in Missouri Medicine in February, August, September, October, November and December, 1956, and in January, 1957. Several of these issues contained more than one article dealing with various aspects of the program.

Letters about Medicare were sent to the presidents of all constituent societies for purposes of discussion on the local level. Special letters were also sent to all members in October, November and December explaining the details of the program. A poll of the membership was taken in November on the question of whether or not the Missouri State Medical Association should proceed with a contract with the government under the program. Results showed approval by 87 per cent of those responding. Further information about this poll is contained in the report of the Committee on Public Policy and Public Relations.

In connection with the implementation of the Medicare law, the chairman and two members of the Committee (Drs. Hawkins and Smith), along with the Executive Secretary, attended a meeting July 28 and 29 in Chicago called by the A.M.A. and Department of Defense. At this meeting actions taken by the government to put the program into effect were explained. A Committee representative also attended a similar meeting August 25 in Denver.

Subsequently, a meeting of the Committee as a whole was held in St. Louis on September 9. After a full discussion of the law, the regulations developed by the Department of Defense to implement it, and the implications of the legislation, the Committee voted to recommend cooperation with the government in carrying out the provisions of the law.

The Committee further voted to recommend that the Missouri State Medical Association act as the contracting agency on matters of policy and control. Following the resolution adopted unanimously by the House of Delegates at the 1956 Annual Session, anticipating pas-

The Committee on Medical Economics had studied several problems.

The Committee on Medical Economics had met several times.

sage of the law, the Committee recommended that the two Missouri Blue Shield plans be requested to act as fiscal administrators under the program.

A number of fee schedules and relative value scales had been made available to members of the Committee for study in advance of the meeting and several members brought additional material of their own. After thorough discussion, the Committee developed a tentative schedule of fees to be recommended to the Council for use in negotiating the Medicare contracts with the government.

These recommendations were later approved by the Council after study, and further information on the Medicare program will be found in the Council's report. The Committee Chairman, with the Executive Secretary and legal counsel, was designated to negotiate the contracts with the government, and agreement was reached with Department of Defense representatives on November 19, in Washington. Information about these contracts was sent to the membership in December, and a manual on the program is now in process.

One of the provisions of the 1956 amendments to the federal Social Security laws provides matching funds for payment of vendors of medical care to the indigent. State legislation will be required to implement these provisions in Missouri.

Meetings of the Committee to discuss this program were held on October 21 and again on January 6. Representatives of the Missouri Division of Welfare, which will administer the program in the state, were present at the October meeting.

The present program and the new provisions were explored, as well as similar programs in other states. The implications of the legislation for the practice of medicine and the problems involved are also discussed.

The details of the program which might be developed for Missouri under this legislation have not been determined. At the January meeting, however, an enabling act which the Division of Welfare proposed to introduce in the State Legislature was examined, and the following action was taken by the Committee, one dissenting:

"Traditionally the medical profession has provided care for indigent patients without charge. The medical doctors of Missouri are ready, as always, to continue this tradition of service to patients in need without regard to payment.

"There is, however, an apparent trend toward provision of public funds for the health care of indigent people. This trend has been embodied in Social Security legislation providing federal funds, to be matched by the states, to be paid for indigent health service. State legislation will be called for to implement the federal law.

"It is the strong feeling of the Committee that the proposed state legislation, in view of its importance to the public welfare and the individual patients who may receive care, should include provision for the appointment of a medical advisory committee to consult with and advise the State Department of Welfare on matters affecting all phases of medical care."

The following minority report was also made:

"It is the feeling of the minority of the Committee, (1) that the legislature should be appraised of the potential cost of medical care as outlined in Section 208.150 (of the proposed bill), (2) that physicians, recognizing the growth in population of the aged and disabled aged, suggest that provision be made in the rules and regulations implementing such legislation for payment to physicians for service rendered and that such payments should bear an equitable relationship to sums paid other vendors in the health and welfare field."

These reports were submitted to the Council on January 26.

As is customary, the Committee is furnishing information relative to the progress of Blue Shield and Blue Cross plans in Missouri.

Missouri Medical Service (Blue Shield)

Membership, December 31, 1955	415,730
Membership, December 31, 1956	445,162
Reserve per agreement	$9.47
Reserve per participant	$3.98
Number of cases paid	86,090
Amount paid during year	$4,935,841.00

Kansas City Blue Shield Surgical Medical Care

Membership, December 31, 1955	408,441
Membership, December 31, 1956	439,585
Reserve per agreement	$12.75

Blue Cross—St. Louis Plan

Membership, December 31, 1955	827,874
Membership, December 31, 1956	840,548
Reserve per agreement	$7.04
Reserve per participant	$2.94
Number of cases hospitalized	150,795
Number of days hospitalized	983,300
Average days stay per year	7.9
Amount paid during year	$16,354,041.00

Kansas City Blue Cross Hospital Service

Membership, December 31, 1955	447,506
Membership, December 31, 1956	480,295
Reserve per agreement	$10.73
Reserve per participant	$4.10
Number of cases hospitalized	79,247
Number of days hospitalized	509,329.5

The Committee on Mental Health gave its report.

Average days stay per year	7.9
Amount paid during year	$8,552,232.37

A. P. Rowlette, Chairman,
George L. Hawkins,
John R. Forgrave,
Arthur B. Smith,
E. A. Stricker,
John T. Crowe,
E. D. Imes.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Mental Health, Thomas Thale, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON MENTAL HEALTH

The Committee met on June 3, 1956, and January 13, 1957. The Committee considered the following items: The new Missouri commitment law, Senate Bill 59, adopted by the legislature in 1955, and which permits voluntary and involuntary methods of commitment to state mental hospitals; Senate Bills 60 and 61, passed by the legislature in 1955 and vetoed by the governor, dealing with the appointment of a Commission on Mental Health which in turn would appoint the Director of the State Division of Mental Diseases; the possibility of legislation dealing with certification of clinical psychologists; the possible use of nursing homes for patients requiring only custodial type care in order to reduce the present overcrowding of state hospitals; the need for facilities for mentally disturbed children separate from facilities available for adults; the need for training programs for psychiatrists and persons interested in psychiatric adjunctive therapies; changes in the present reporting forms required for admission of patients to state hospitals, and reports relative to programs presented at two meetings of the A.M.A. Council on Mental Health.

Actions taken by the Committee were as follows:

1. A proposal to amend the new commitment law, as outlined in Senate Bill 53, introduced on January 21, 1957, making it possible for an examination by one physician instead of two as presently required, and with certain other minor changes was approved by the Committee.

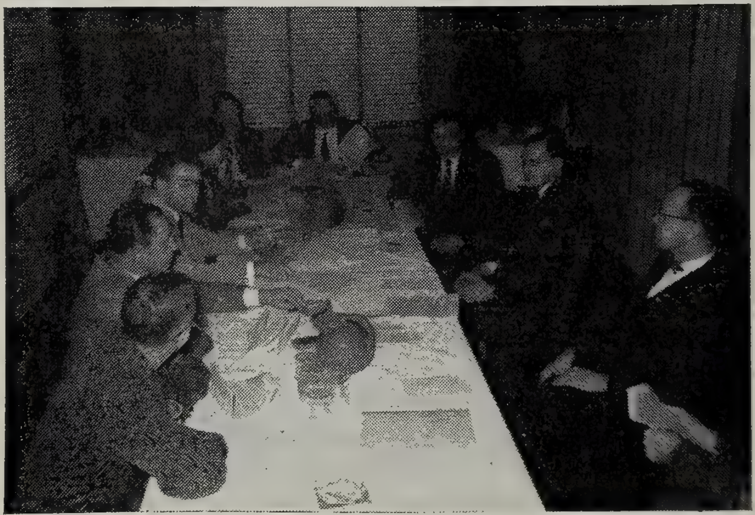
2. The Committee approved a statement relative to the Senate Bills 60 and 61, vetoed by the governor in 1955, as follows:

"The Committee reviewed Senate Bills 60 and 61 passed by the 1955 legislature. These acts made changes in the law, providing for the appointment of a Commission on Mental Diseases. The Commission would appoint the Director of the Division and outline duties and responsibilities relating to the care in state mental hospitals. These acts were vetoed by the governor.

"The general concensus is that little will be accomplished in the improvement of state mental hospitals until a director is in charge who has the necessary qualifications.

"The American Psychiatric Association is to make a study of the Missouri state hospitals. The study is expected to be started sometime this fall. It was pointed out that certainly one of the major recommendations of the A.P.A. will be that a qualified director be appointed to head the Division of Mental Diseases. Therefore, it was agreed that 'a physician, skilled in the treatment of nervous and mental diseases, certified by the American Board of Psychiatry and Neurology, and who has had a minimum of five years experience in mental hospital administration, should be appointed as Director of the Division. Such a person need not be a citizen of the State of Missouri.' As an alternative, it was recommended, 'that a person skilled in the management of hospitals and a member of the American College of Hospital Administrators should be considered. Such a person need not be a physician.' In addition, an Advisory Committee of five persons, at least three of whom are skilled in the treatment of nervous and mental diseases, should be appointed to assist the director. The reason for the alternative suggestion is to make it possible to employ an experienced person in the event the legislature is unwilling to raise the salary sufficiently in order to obtain a physician with the necessary qualifications."

"The following action was voted: The Committee is disappointed that the survey of the State mental hospitals, referred to in the minutes of the Committee, June 3, 1956, has not been made; that action taken at that time was based on the belief that the survey would be completed prior to 1957 and the Committee strongly urges that the survey be completed as soon as possible; that, if legislation is proposed in 1957, the act should provide that the director of the Division of Mental Disease should have qualifications as previ-



More than one meeting was necessary for the Committee.

ously recommended by the Committee with an adequate staff of trained personnel so that a strong central office may be created. It was further agreed that the Committee can request consultants from the A.P.A. without cost if the legislature desires information about proposed or pending legislation concerning the position of the Director of the Division."

Since that action, H.B. 49, introduced by Representative Jones, and S.B. 59, introduced by the members of the Special Mental Committee of the Senate, are pending before the General Assembly. These acts are not in conflict with the action taken by the Committee.

3. The Committee has studied the question of legislation pertaining to clinical psychology for several years. New York has legislation which provides a method of certification as follows:

"Qualifications; standards; examinations. 1. The department shall issue a certificate as psychologist to any person who pays a fee of four dollars, who passes a satisfactory examination in psychology, and who submits evidence verified by oath and satisfactory to the department that he: a. Is at least 21 years of age. b. Is of good moral character. c. Is a citizen of the United States or has legally declared his intention of becoming such a citizen. d. Has received the doctoral degree based on a program of studies whose content was primarily psychological from an educational institution having a graduate program registered by the department, or its substantial equivalent in both subject matter and extent of training. e. Has had at least two years of satisfactory supervised experience in rendering psychological services.

The act provides provision for revocation and a penalty clause and would require a board for certification. It was voted to approve the psychologists seeking the proposed legislation, providing it maintained the standards set out in the New York proposal.

4. Overcrowding is a serious problem in our state mental hospitals. Senate Bill 7, introduced January 2, 1957, seeks to reduce the overcrowding by making it possible for the superintendent of a state mental hospital to place certain patients in boarding or family homes. The Committee favors the proposal provided the bill is amended as follows: a. Provision be made for periodic medical review of patients; b. Provisions be made for efforts to return patients to as near their home community as possible.

5. Lack of facilities for mentally disturbed children is a problem. These children now are hospitalized with adults. A separate institution should be built for mentally ill children or facilities should be provided at the present hospitals separate from the facilities for adults.

6. It was agreed that there is a need for a training program in Missouri for psychiatrists and persons interested in psychiatric adjunctive therapies, and that the legislature should be encouraged to provide funds for a training program if such persons agree to work in Missouri state mental hospitals for a stipulated time following training.

7. The medical certificate used in referring a patient to a state mental hospital was reviewed. Certain changes were recommended, and the new proposed form will be submitted to the Director of Mental Diseases.

The Committee on Maternal Welfare held a luncheon meeting.

8. The Chairman attended two meetings of the A.M.A. Committee on Mental Health. A wide variety of subjects have been presented including "Certification of Clinical Psychologists," "Hypnosis in Medical Practice," "Alcoholics," "Tranquilizing Drugs," and "In-patient Facilities for Care of Children."

THOMAS THALE, Chairman,
G. WILSE ROBINSON, JR.,
ERNEST H. PARSONS,
W. J. CREMER,
HENRY V. GUHLEMAN,
JOHN J. O'HEARNE,
JAMES N. HADDOCK,
E. H. TROWBRIDGE, JR.,
D. R. EDWARDS,
ALEX L. BROWN.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Maternal Welfare, Joseph L. Johnston, M.D., Springfield, Chairman, follows:

REPORT OF THE COMMITTEE ON MATERNAL WELFARE

The Committee on Maternal Welfare has held one meeting this year; however, subcommittees in the Eastern and Western sections of the state have met frequently. These subcommittees have reviewed the causes of maternal deaths in the state through the month of October. The report of this work will be presented at the Committee on Maternal Welfare luncheon to be held Monday, April 1, Trianon Room, Hotel Muehlebach. At this luncheon there will also be presented a discussion of "Cases of Maternal Deaths Due to Toxemia."

At the meeting of the Committee, proposed legislation was discussed which would serve as a safeguard for persons or organizations working in research in maternal mortality, making it mandatory that information be held confidential except for research purposes. The constitutionality of the draft presented was questioned by some members of the Committee and it was decided that this should be determined and if it were found to be constitutional that the bill should be introduced in the present legislature. This will have been done prior to the time of the Annual Session.

The Chairman of the Committee presided at the meeting of the Committee on Maternal Welfare.

Official stationery for the work of the Committee and the subcommittees was approved.

Dissemination of information on maternal studies was discussed. It was decided that the Committee would plan specific panel and individual presentations which might be made to component medical society or district meetings and that this information be given the Missouri State Medical Association and the Missouri Academy of General Practice. It was also suggested that a place on the program of the Missouri Hospital Association be requested for the meeting to be held next fall.

It was recommended to representatives of the Division of Health that a question be included on the certificate of death as to whether the deceased was pregnant at the time of death or during a period of six months prior to death. The Committee was assured that this would be done.

An outline of recommendations for the care of obstetric patients in hospitals, which has been under study by the Committee, was studied together with changes recommended by the similar committee of the Missouri Academy of General Practice. It was decided that representatives from each group should meet and work out suitable wording. It is planned that this will be done during this Annual Session and the time suggested was Monday evening, April 1.

The Committee hopes that members of the House of Delegates and of the Association will attend the Committee on Maternal Welfare luncheon to be held Monday, April 1.

Joseph L. Johnston, Springfield,
William See,
E. E. Wadlow,
Helman C. Wasserman,
Gerald L. Miller,
P. V. Siegel,
James E. Keeler,
Joseph M. Krebs,
John E. Burch,
Francis R. Burns,
E. L. Niedermeyer.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Infant and Child Care, Daniel B. Landau, M.D., Hannibal, Chairman, follows:

REPORT OF THE COMMITTEE ON INFANT AND CHILD CARE

The Committee met formally on June 17, 1956. At this meeting certain changes were recommended for the Missouri poliomyelitis vaccine program.

1. It was recommended that the vaccine be given to individuals 6 months of age through 19 years of age and to pregnant women, and that physicians having vaccine which would expire at an early date use their own judgment regarding its use.

2. It was recommended that every effort be made to give the first two injections to as many eligible persons as possible. If an adequate supply of vaccine continues to be available, then the third inoculations should be given accordingly.

3. That all people who work with polio patients be given the shots regardless of age.

4. It was suggested that the vaccine be given the year around even in the presence of an epidemic, but that it not be given to household contacts of current cases.

With all of these recommendations it is stressed, however, that the federal laws regarding the poliomyelitis vaccine be followed to the letter.

Because of the request for help from many of the school nurses and teachers, a list of recommended procedures for first aid and emergency illness for children in school was compiled by the Division of Health and submitted to the Committee. The Committee approved the suggested procedures with the recommendation that these standards be modified to meet specific need as deemed advisable by the local county medical society, the Missouri Division of Health and the school district concerned.

Because of the increased demand upon the time of the school child to participate in extra curricular activities, the Committee expressed considerable concern about this problem. There was some discussion as to what effect these increased demands might have upon the general health of the child. The Committee suggested methods whereby organized medicine might take an active stand regarding this problem and recommended to the Council that the overall health of the school age child be considered. The Committee recommended to the Council of the State Medical Association that county medical societies be requested, possibly by a letter from the president, to appoint local society committees to consider the school age child. It was felt that these committees might well make contact with the local school administrators and offer their advice and assistance on school health matters. The Committee recommended that other letters be written to the Missouri Association of School Administrators, to the Missouri Congress of Parents and Teachers and to other interested parties.

Because of the increasing interest in health education workshops in Missouri relating to school age children, the Committee felt that cognizance should be taken of this program. Recommendations were made to insure more active interest in this program by the entire State Medical Association as well as the local medical societies in the localities where the workshops are held. It was suggested that personnel from the State Association office contact those having primary responsibility for these workshops and offer the assistance of this Committee in addition to that of the local medical societies concerned.

On January 26, 1957 an A.M.A. Polio Conference was held at the Palmer House, Chicago, Illinois. The Missouri State Medical Association was represented by the Chairman of the Committee on Infant and Child Care and by Mr. Jordan Singleton, Public Relations Consultant.

At this conference which was attended by representatives from every state in the Union, the District of Columbia, Alaska, and the Hawaiian Islands, the problems pertinent to the lag in the poliomyelitis vaccine program were discussed. It was brought out at this meeting that poliomyelitis can be virtually abolished by widespread and judicious use of the vaccine. The conference was addressed by many interested and well informed people. Various programs from different states were presented as well as discussions by some of the foremost authorities in this field.

The conference was addressed by the President of the A.M.A., Dr. Jonas Salk, Dr. Alex Langmuir and other authorities, all of whom presented evidence attesting to the efficacy of the vaccine and the urgency for its more wide-spread use.

A meeting of the Infant and Child Care Committee of the Missouri State Medical Association is planned for February 10, 1957. The recommendations of the Committee at this time will be submitted to the Council prior to the state meeting in Kansas City in March of this year.

DANIEL B. LANDAU, Chairman,
H. E. WACHTER,
R. J. LADRIERE,
GUY N. MAGNESS,
JOHN S. SENNOTT,
R. SLICKMAN,
ROY F. GARRISON,
E. J. SCHWARTZ,
JACK N. WILES,
JAMES A. KINDER.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Health and Public Instruction, A. W. McAlester, M.D., Kansas City, Chairman follows:

REPORT OF THE COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

The Committee sponsored another attractive and interesting educational exhibit at the Missouri State Fair at Sedalia, August 18 to 26, 1956. This exhibit, entitled "Food Facts and Fallacies," was secured on loan from the Bureau of Exhibits of the American Medical Association. The exhibit was well received by its many "Fair" visitors and undoubtedly caused some people to begin thinking more about some of their eating habits.

Large numbers of free pamphlets on various health subjects were available at the exhibit and were freely taken by the booth visitors. The total attendance during the nine day session numbered 537,066, which was just 5,109 short of the all time high set in 1955.

The Committee believes that the State Fair offers an effective and unique medium for disseminating information to the public, be it on health matters or on raising rabbits.

There are many county fairs held each year in Missouri where county medical societies and their auxiliaries may find fertile opportunities for health education projects and activities.

On various occasions throughout the year, the Committee has been called upon to furnish speakers for civic clubs, P.T.A.'s, health forums and other similar group meetings. These requests have all been filled.

The Bureau of Health Education of the American Medical Association maintains and continuously adds to a large library of good health education transcriptions for radio and television. These are offered on a loan basis to state and local medical societies and their auxiliaries and are easily adaptable to local usage. A number of county medical societies and some auxiliaries are using this A.M.A. service. The Committee commends them on these lay health education projects.

Some of the larger medical societies over the state are presenting regularly scheduled live radio and television health programs over their local stations. These societies include Buchanan, Greene, Jackson and St. Louis.

The Committee recommends that all county medical societies, composing the Missouri State Medical Association, appoint committees on health and public instruction and charge these committees with the development and promotion of local medical society public information projects relating to health and medical care.

A. W. MCALESTER, III, Chairman,
R. R. GRAYSON,
J. EARL SMITH,
EDGAR A. BELDEN,
HENRY C. WILLUMSEN.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Constitution and By-laws, W. A. Bloom, M.D., Fayette, Chairman, follows:

REPORT OF THE COMMITTEE ON CONSTITUTION AND BY-LAWS

The House of Delegates at the 1956 Session approved a recommendation of the Budget Committee of the Council that the dues of the Association be raised to $35.00. The House did not, however, amend the By-laws to conform with this change so the following proposed amendment is for the purpose of making the By-laws conform with the action of the House of Delegates.

Amend Section 1 of Chapter VIII. Dues and Assessments, by changing the figure in the first sentence from $25.00 to $35.00 so that when amended the section will read: "Section 1. The annual dues of this Association shall be $35.00, which shall be applicable to each active member of the Association and shall be levied per capita on the active members of the component societies; the per capita levy for junior members shall be one half of the per capita levy for active members; honor and associate members shall not be required to pay dues. Dues shall be payable on January 1 of the year for which they are levied."

W. A. Bloom, Chairman,
H. M. Parker,
Kenneth V. Larsen,
W. L. Allee,
P. W. Jennings.

The Speaker referred this report to the Reference Committee on Amendments to the Constitution and By-laws.

The report of the Committee on Fractures, Paul W. Meyer, M.D., Kansas City, Chairman, follows:

REPORT OF THE COMMITTEE ON FRACTURES

The Committee did not meet during 1956. However, a subcommittee met with representatives of the Missouri Chiropody Association to discuss proposed changes in the chiropody law.

The proposed change is as follows: "The definition of the word 'chiropody' shall, for the purposes of this Chapter, be held to be the diagnosis, medical, mechanical or surgical treatments of the human foot, and massage in connection therewith except amputation of the foot or toes or the use of anesthetics other than local."

This proposed change adds diagnosis to the present definition. In addition, drugs or medicine are permitted, whereas now they are prohibited.

Copies of the proposed change were sent to all members of the Committee for their consideration. Of those replying, all favored the change except two members, Drs. W. J. Stewart and O. P. Hampton.

Paul W. Meyer, Chairman,
Ralph K. Earp,
William H. Snead,
Jacob Kulowski,
W. J. Stewart,
S. L. Gernstetter,
B. L. Murphy,
Thomas G. Otto,
R. E. Funsch,
O. P. Hampton,
Otis E. James.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Conservation of Eyesight, Theodore E. Sanders, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON CONSERVATION OF EYESIGHT

The Committee met and reviewed Senate Bill 26, pertaining to the practice of optometry. The act exempts physicians and surgeons from the terms of the act. It was agreed that no action be taken on the legislation provided amendments satisfactory to the Association are adopted.

A proposed bill to license dispensing opticians was considered. This group considers that it is necessary to seek licensing legislation because of the desirability of giving the optician legal standing by licensure. The Committee voted to approve of this proposed legislation after minor changes were made in the act.

The Committee discussed the need for improvement in eye testing in connection with driver's licensing examinations, particularly in relation to reexamination. It was agreed to offer the services of the Committee in this regard if the State Highway Patrol so desires.

T. E. Sanders, Chairman,
John McLeod,
H. B. Stauffer,
Robert S. Minton,
W. J. Marshall,
Dick H. Underwood,
Paul G. Wolff,
Michael F. Pernoud,
D. E. Eggleston,
Horace E. Allen,
W. L. Post.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Control of Venereal Disease, Edwin M. Powell, M.D., Springfield, Chairman, follows:

REPORT OF THE COMMITTEE ON CONTROL OF VENEREAL DISEASE

The Committee did not meet during 1956. However, previous recommendations of the Committe made in collaboration with the Committee on Laboratory Medicine relative to reporting of venereal disease cases were put into effect by the State Division of Health during 1956.

A pilot study has been operating in the City of St. Louis for a period of six months. The Committee will meet to consider a report relative to the pilot study after the program has been effect for one year.

Edwin M. Powell, Chairman,
R. J. Murphy,
E. M. Cannon,
A. W. Neilson,
William B. O'Connor.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Diabetes, Henry E. Oppenheimer, M.D., St. Louis, Chairman, follows:

The Committee on Diabetes held a dinner meeting.

REPORT OF THE COMMITTEE ON DIABETES

PROFESSIONAL EDUCATION

One formal meeting of the Diabetes Committee was held in St. Louis on April 7, 1956 and related to professional education in diabetes.

Further discussion was held concerning the feasibility of one of the following:

1. The inclusion of a paper on diabetes at each Missouri State Medical Association Annual Session. The suggestion was made that the St. Louis and Kansas City Diabetes Associations sponsor a speaker each year, with the understanding that his paper be submitted for publication in Missouri Medicine.
2. A scientific session every third year (to alternate thereby between Kansas City and St. Louis) which would be sponsored by the Diabetes Committee, and would precede the Missouri State Medical Association Annual Session or would be an integral part of it.

No decision was reached regarding these suggestions.

DIABETES SOCIETIES

There are at present two diabetes societies in Missouri, each with a professional and a lay component. These organizations are active in their respective areas, and each has led in the following fields of endeavor:

1. Professional education by means of scientific meetings.
2. Diabetes Detection Drives.
3. Summer Camps for diabetic children.
4. Lay education, by means of panel discussions, food shows, public meetings, and the dissemination of literature and other media pertaining to diabetes.

PROFESSIONAL EDUCATION

The St. Louis Clinical Diabetes Society sponsored Dr. Sol Sherry in April, 1956 at a meeting of the St. Louis Medical Society. Dr. Sherry spoke on "Oral Hypoglycemic Agents." They are sponsoring Dr. W. Stanley Hartcroft in April, 1957.

The Kansas City Clinical Diabetes Society sponsored Dr. Alexander Marble in April, 1956. Dr. Marble, of the Joslin Clinic, was the main speaker at the reorganization dinner of the Kansas City group.

DIABETES DETECTION DRIVES

Kansas City and St. Louis each have held annual Diabetes Detection Drives and Springfield had its first drive, with plans to make it an annual event. These have been successful, discovering new diabetic persons, stimulating interest in those who already have the disease, and devising new methods for detection.

The American Diabetes Association transmits information about detection to every County Medical organization. There have been five requests for further information and that has been given.

SUMMER CAMPS

The Summer Camp for diabetic children in Swope Park, Kansas City, was very successful, as was that at Lions Den in St. Louis. Recently the American Diabetes Association has suggested minimum and ideal standards for camps and each of these Missouri camps approaches the ideal in practically all respects.

LAY EDUCATION

Lay education has been carried out by means of panel discussions (November, 1956 in St. Louis), a food show (May, 1956 in St. Louis) and by means of literature on diabetes.

PROPOSED COMMITTEE ACTIVITIES

The Diabetes Committee is planning a Scientific Session on Monday night, April 1, to accompany the Annual Session. This dinner meeting is to be open to all members of the Missouri State Medical Association and the scientific session will be carried out by Missouri physicians. There will be an attempt made to submit the papers to Missouri Medicine for publication. It is hoped that this meeting will become a regular event.

In addition the Committee will attempt to participate in a proposed luncheon of the Kansas City Diabetes Society on that same date.

CITATION

Mr. and Mrs. C. Paul Tiley, Chairman of the Camp Committee and President of the St. Louis Diabetes Association respectively, have been chosen by the nominating committee of the American Diabetes Association as the outstanding lay persons for the year 1956 and will be so honored in June, 1957 at the National Convention.

SUMMARY

The Diabetes Committee is unique in that it is in a position to correlate activities between the Missouri State Medical Association, the local diabetes societies and the American Diabetes Association. It can do so because many of its members are active in several groups. An attempt should be made to further these bonds and thereby continue these correlating activities.

Henry E. Oppenheimer, Chairman,
Lucien W. Ide,
G. Bruce Lemmon, Jr.,
Robert H. Hodge,
Charles M. Lamke,
Robert E. Koch,
William H. Olmsted.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Anesthesiology, W. W. Tillman, M.D., Springfield, Chairman, follows:

REPORT OF THE COMMITTEE ON ANESTHESIOLOGY

Postgraduate instruction in anesthesiology has been encouraged throughout the state as an informal activity. Individual instruction and assistance has been provided for those individuals requesting such service.

Various aspects of anesthesia have been presented to county medical society meetings during the past year.

Attempts have been made to interest additional anesthesiologists to practice in Missouri.

Members of this Committee participated in discussions formulating the Medicare program for Missouri.

A listing of residencies and postgraduate training facilities in Missouri is available for those doctors interested in such training.

W. W. Tillman, Jr., Chairman,
O. T. Blanke,
Merritt H. Kimball,
Carl K. Ness,
Seymour Brown.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Hospital and Professional Relations, Hollis Allen, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON HOSPITAL AND PROFESSIONAL RELATIONS

The principal function of the Committee is to represent the Association as one of the three groups which make up the Missouri Conference for the Improvement of Care of the Patient. Three representatives of the Committee, Hollis Allen, St. Louis, Stanley Peterson, Springfield, and C. M. Waggoner, Columbia, met with a like number of representatives of the nursing and hospital groups to discuss matters of common interest.

The Missouri Conference met three times during 1956. The following subjects were discussed: Problems of the Aging; Legislation pertaining to the Licensing by the State of Nursing Homes; and, Activities of a Private Nursing Organization, known as "The Committee on Public and Patient Education."

The problems of the aging were considered by a subcommittee of the Joint Conference which reviewed chronic disease studies now being made in St. Louis and Kansas City by two separate groups, together with other data pertaining to chronic illness. It was agreed that, in the event the State Division of Health should make a study of health conditions of the aging, the Joint Conference offer its services to the Division in an advisory capacity.

Officers of the two state-wide groups in the nursing home field were present at meetings of the Joint Conference. They explained the differences in opinion which exists between the groups over the type of legislation required to license nursing homes. One group is of the opinion that homes should be divided into three categories, "Professional Nursing Homes," "Nursing Homes" and "Boarding Homes." Standards should then be set which each type of home would have to meet. The other group favors legislation which does not define in the act the standards of the various types of homes and would leave to the State Division of Health the right to set up regulations for the various homes licensed. The Joint Conference took no action on this subject.

Another activity of the Committee is participating with representatives of the Missouri Hospital Association in matters relating to Hospital-Physicians Relations. The following members of the Association served on this Committee during 1956: Drs. Hollis Allen, St. Louis; Milton Shoss, Cape Girardeau; W. S. Sewell, Springfield; C. M. Waggoner, Columbia; Stanley S. Peterson, Springfield, and Victor B. Buhler, Kansas City. The Hospital Association appointed an equal number of representatives. Two meetings of the Committee were held.

The Committee considered a booklet adopted by a similar special committee in the State of Massachusetts. The booklet is entitled, "Recommended Policies for Hospital-Medical Staff Relationships." A special subcommittee composed of Drs. Hollis Allen and Victor B. Buhler, Mr. Harry Panhorst and Mr. Leslie Reid was appointed to study the booklet and to prepare an outline of policies similar to Massachusetts.

A proposed outline was submitted to the Committee at a meeting held January 24, 1957. The outline, as amended, was approved for submission to the next meeting of the Committee which will be held March 10, 1957. If approved by the Joint Committee at that time, the proposed "Recommended Policies for Hospital-Medical Staff Relations" will then be submitted to the Missouri State Medical Association and the Missouri Hospital Association for ratification.

Hollis Allen, Chairman,
Victor B. Buhler,
Milton Shoss,
Stanley S. Peterson,
Charles M. Waggoner,
W. S. Sewell,

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Physical Medicine and Rehabilitation, D. Elliott O'Reilly, M.D., St. Louis, follows:

REPORT OF THE COMMITTEE ON PHYSICAL MEDICINE AND REHABILITATION

The Committee met once during the last year, on November 11, 1956. A proposed bill covering registration of physical therapists was considered. The Committee felt that this legislation would be beneficial if provisions were included to preclude private offices by physical therapists, and to permit acceptance of National Registry examination in lieu of state examination. These recommendations were made to the Council, but further promotion of this legislation has not been done because of possible conflict with other medical legislative programs.

In view of the increased burden on the State Vocational Rehabilitation Service, imposed by P.L.880, which permits disability payments at age 50 following evaluation by the Vocational Rehabilitation Service, the Committee recommended that sufficient funds be appropriated by the legislature to cover this evaluation, and to meet the increased need for rehabilitation services that will result. Moreover, fees for medical examinations should be increased by the Vocational Rehabilitation Service in order to cover the costs of these examinations.

The Committee feels that the point should be emphasized that the physician submitting a report on the physical findings of a patient at his own request under this law, is not determining disability. Such determination is made by the agency of H.E.W. assigned to this task.

The Chairman of this Committee has continued to participate on the Advisory Committee to the State Director of Health, relative to rehabilitation facilities for the Missouri Hospital Plan, under the Hill Burton

The Committee on Civil Defense held a dinner meeting.

Law. Further grants under these laws were made during the year following consultation with the Committee.

D. Elliott O'Reilly, Chairman,
Edward D. Campbell,
Herbert A. Hamel,
Horace E. Thomas,
Frank D. Sundstrom.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Civil Defense, Carroll P. Hungate, M.D., Kansas City, Chairman, follows:

REPORT OF THE COMMITTEE ON CIVIL DEFENSE

During the year 1956, medical activities in Civil Defense, in the State of Missouri, received little top leadership. There was a continuing program in Radiological Defense Training carried on by the State Division of Health.

A 200 Bed Emergency Hospital was acquired by the State of Missouri Civil Defense Agency and is stored at Rolla, Missouri. The medical profession has not had an opportunity to view this unit nor to utilize it for training.

Civil Defense education continued during the calendar year 1956. Various members of the Committee arranged programs with local medical societies and civic organizations. Various members of the Committee lectured to these interested groups of professional and lay people.

There was active support by the medical profession of the State of Misouri during the National Civil Defense Alert held in the summer of 1956. The medical and para-medical group in District I were particularly active in view of the fact that St. Joseph, Missouri, theorectically, received an atom bomb during the exercise. Medical and para-medical presonnel attended a statewide district meeting at Maryville, Missouri, prior to the National Alert. Over half of those attending the meeting were representatives of the medical division, which indicates that the interest of medical and para-medical groups remains high.

The Civil Defense Committee of the Missouri State Medical Association sponsored a statewide Medical-Health Division meeting in Kansas City on November 25, 1956. Representatives from the American Medical Association and Federal Civil Defense Administration participated in the program. Two hundred and fifty medical-health personnel, from all over the State of Missouri, were present for the entire day's program. Many medical, dental, and other para-medical personnel attended together with their local city officials. The Committee feels this is the ideal way of developing community cooperation for advancing a complete Civil Defense program.

The Committee has recommended that the membership not be changed, but that the chairmanship be rotated among the various members from year to year. The Committee also recommended that there be more active leadership from the State Civil Defense Office or that a loosely knit organization of medical-health personnel be stimulated and developed by the Missouri State Medical Association to further the progress of Civil Defense and Disaster organizations.

C. P. Hungate, Chairman,
A. S. Bristow,
John Forgrave,
J. M. Canella,
Curtis H. Lohr,
James L. Mayfield,
William C. Allen,
Carl D. Siegel,
Don J. Silsby,
Samuel A. Grantham,
George E. Thoma,
George L. Watkins.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Tuberculosis, Paul Murphy, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON TUBERCULOSIS

The Committee on Tuberculosis has had no formal meeting during the year. However, members of the Committee have worked with the Division of Health and its Bureau of Tuberculosis Control to complete a "Tuberculin Test Guide." This guide is available to physicians through the Missouri Division of Health or the office of the Missouri Tuberculosis Association.

An announcement of the availability of the Guide was carried in the March issue of Missouri Medicine at the request of the Committee.

Paul Murphy, Chairman,
E. E. Glenn,
Lawrence E. Wood,
J. L. Mudd,
C. A. Brasher,
Walter C. Gray,
F. E. MacInnis,
H. L. Greene,
David N. Kerr.

The Speaker referred this report to the Reference Committee on Medical Education and Public Welfare.

The report of the Committee on Alcoholism, Ralph E. Duncan, M.D., Kansas City, Chairman, follows:

REPORT OF THE COMMITTEE ON ALCOHOLISM

All members met during the 1956 Annual Session of the Association at St. Louis and agreed to promote the following five point program.

1. Continue to study the problem of alcoholism in Missouri.
2. Promote the formation of local committees on alcoholism in counties where they now do not exist.
3. Stimulate the established committees to step up their programs.
4. Provide educational material for local committees and all inquirers.
5. Develop and publish a revised edition of *Alcoholism in Missouri.*

During 1956 the Committee was frequently consulted by members of the association and others interested in the subject. Educational and reference material was furnished to those who had an "alcohol problem" in their home, to students who had chosen the subject to develop a thesis, to instructors in primary and secondary schools, schools of nursing, to colleges and to the Medical Department of the United States Navy.

Alcoholism in Missouri and other material developed by a member of the Committee was duplicated by the Bureau of Medicine and Surgery and distributed to all medical companies for use as reference material in developing a period of instruction on the subject of alcoholism—one of fourteen subjects included in the Navy's course on the general subject of "Preventive Medicine."

Other governmental agencies have requested several hundred copies of the Committee 1957 Report *Alcoholism in Missouri* which the Committee hopes to publish before May, 1957.

Again the Committee desires to express their thanks to Walter O. Cromwell, M.P.H., formerly Executive Secretary of the Health Council of Kansas City, Missouri, and now Executive Secretary, Health Section of the United Community Services, Washington, D. C., for his continued interest and help in developing the Committee's program.

The Committee suggests that the Council recommend to the House of Delegates at the coming meeting in Kansas City, March 31 to April 3, 1957:

1. That the Committee on Alcoholism be continued.
2. That the aims of the Committee, originally outlined in its report, printed on page 28 of the Report of Officers and Committees for 1952, be reaffirmed by the Association.
3. That the Committee on Alcoholism be instructed to continue to promote, with the assistance of the Association's officers and the staff of its executive office, necessary legislation that will provide ways and means to meet the problem of alcoholism in Missouri, squarely and effectively.

Ralph Emerson Duncan, Chairman,
Kenneth Coffelt,
George W. Forman,
Joseph B. Kendis,
S. D. Smith.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Rural Medical Service, A. E. Spelman, M.D., Smithville, Chairman, follows:

REPORT OF THE COMMITTEE ON RURAL MEDICAL SERVICE

The physicians placement service in the office of the Association has, and is, functioning in creditable fashion. A large number of physicians seeking locations are constantly contacting our Placement Bureau by letter, telephone or personal visitation.

Information on these physicians is collected and kept on file so that appropriate parts of it may be given to persons or organizations seeking doctors for particular localities. Names and detailed information of communities asking for assistance in locating additional medical manpower is likewise maintained in up-to-date files.

The Field Secretary of the Association visits personally the various localities from which requests have been received for help in finding a doctor. He is able to secure important information, first hand, by these visits which can then be brought to the attention of physicians seeking locations.

The Committee anticipates that the preceptorship training program which has been established for senior medical students at the University of Missouri will serve to eventually influence more doctors to locate in this state and particularly in the smaller towns. Some members of this Committee have already served as a preceptor in the University's program which began in June 1956.

The Committee, during the last year, has worked out a cooperative arrangement with the Council on Rural Health of the American Medical Association to provide a health column for one of Missouri's outstanding farm publications, namely, *The Missouri Ruralist.* This publication, bi-monthly, goes to some 130,000 farm families in Missouri. The health column articles deal with a wide range of common health problems, especially prepared for rural readers through the A.M.A. Council on Rural Health.

Members of the Committee during 1956 were asked and served as advisors to certain communities seeking to build new or additional hospital facilities.

A formal meeting of this Committee was held at the Coronado Hotel, St. Louis, on Sunday, December 16, 1956. A résumé of the discussion, recommendations and actions taken follow:

The chairman of the Committee reported on a Study Conference, concerned with rural health problems, held at Purdue University, Lafayette, Indiana, October 19-20, 1956. This conference was under the auspices of the Council on Rural Health of the A.M.A.

Those taking part in the Conference were primarily physicians representing Rural Health Committees of state medical associations and personnel of the executive staffs of state medical associations who work closely with rural health problems.

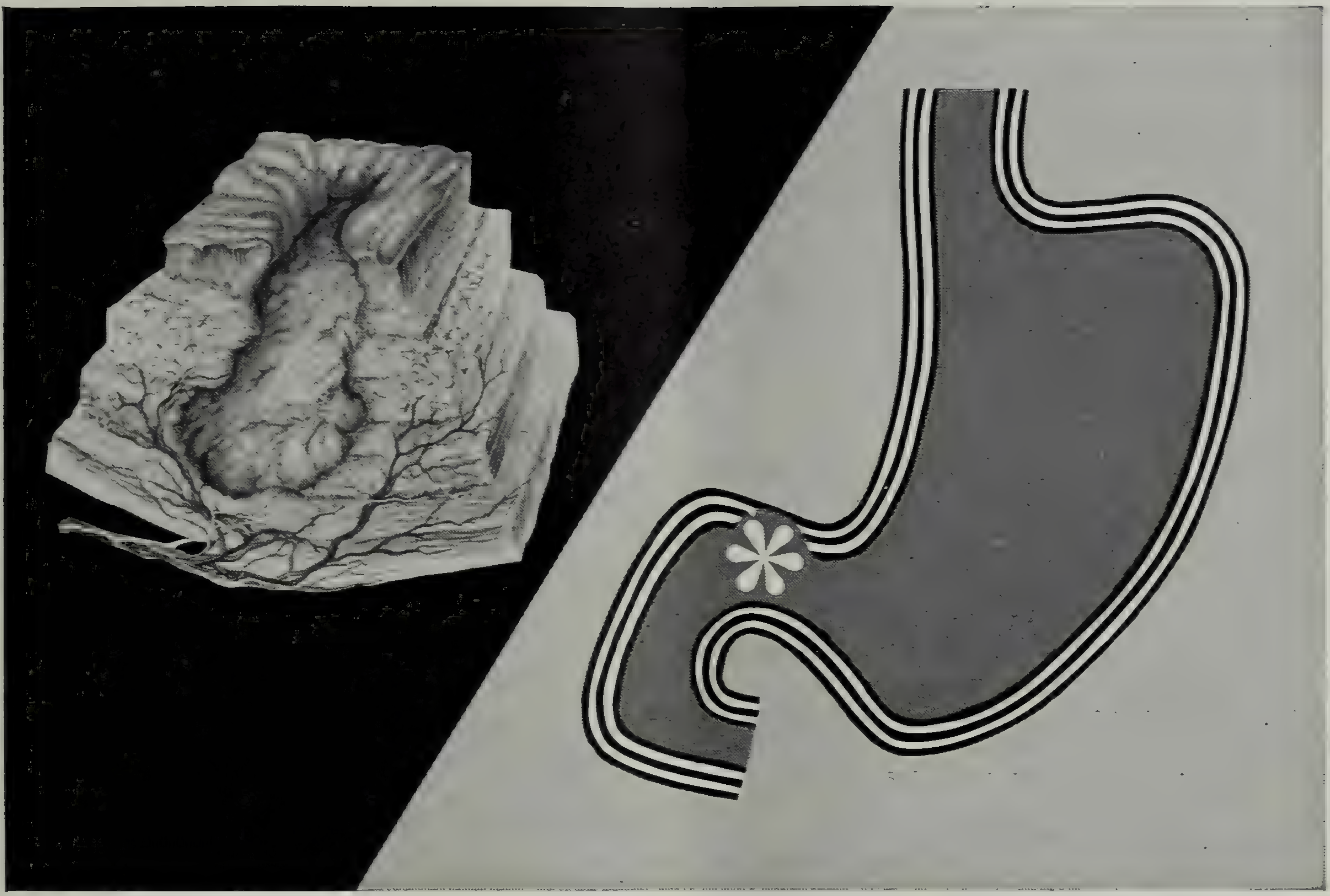
The program for this two day session was developed by the Council on Rural Health of the A.M.A. for the purpose of exchanging project ideas and rural problems' solutions among medical society representatives of the various states.

It was assumed that each would learn from the other during the conference discussions. From these discussions it was hoped that many ideas and suggestions would be taken back home by those in attendance and applied to the solution of local health problems.

The following suggestions for State Rural Health Committees were developed at the Conference and offered as "take home" ammunition:

1. Get acquainted with the leaders or officers of at least five of the major farm or rural groups in your state.
2. Have a meeting or meetings of this group in order to explore the health and medical care needs of the state as they and their groups see them.

BROAD ANTICHOLINERGIC BLOCKADE



Pro-Banthīne® Relieves Pain, Accelerates Peptic Ulcer Healing

The efficiency of Pro-Banthīne (brand of propantheline bromide) in inhibiting the chemical substance which mediates parasympathetic gastric activity explains the success of the drug in ulcer therapy. Pro-Banthīne blocks acetylcholine at both the ganglia and parasympathetic effector sites. This dual action controls excess neural stimulation of both gastric secretion and motility.

The therapeutic benefits of this anticholinergic blockade consist, as many clinical investigators have noted, in prompt relief of ulcer pain and pronounced acceleration of ulcer healing.

The suggested initial dosage is one 15-mg. tablet with meals and two tablets at bedtime. Two or more tablets four times a day may be indicated in severe manifestations. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

SEARLE

3. Invite each organization to designate a representative to become a member of the Advisory Committee to your Rural Health Committee.

4. After sufficient meetings or deliberations, explore the possibility of a State Rural Health Conference to which rural leaders will be invited. This meeting should be sponsored by the Rural Health Committee of the State Medical Association.

5. Persuade each county or area medical society to appoint a Rural Health Committee for the county or area or a liaison physician for the county rural groups.

6. Try to get each county medical society to be host once a year to the agricultural organizations in the counties.

7. Help each community or county to appraise its health and medical care needs.

8. Sponsor the 4-H health activity in the state by offering to the 4-H leaders or Extension Director to defray the expense of one of the two top winners in the 4-H Health Program.

9. Encourage the county medical societies, particularly where they have appointed county Rural Health Committees or liaison physicians, to sponsor local 4-H health activities. Awards to individual winners may be a subscription to *Today's Health.*

10. Get acquainted with the radio and TV farm directors over the state and arrange to provide speakers on medical subjects for their programs.

In the Chairman's opinion, this Study Conference was well worthwhile and served as a good stimulus toward more and better state and local activities concerned with rural health matters.

He reported that the matter of training more physicians for rural practice came in for considerable discussion. He stated that it was brought out clearly that influences toward specialization on medical students and interns are exerted both directly and indirectly through instructors who are specialists themselves. Indications here are that more general practitioners should be utilized by medical schools and teaching hospitals in training young doctors. The question is, how to accomplish this? Some thought this could be done by local doctors approaching the deans of medical schools in their localities or state, while others felt that this situation will have to be solved on a top level, possibly through the Council on Medical Education and Hospitals of the A.M.A. and the Association of American Medical Colleges.

Following the Chairman's report on the Purdue University Conference, members of the Committee discussed freely a number of the points mentioned by the Chairman as well as the suggestions for State Rural Health Committees as previously listed.

Members of the Committee felt that rural health problems will vary from state to state and even from locality to locality. These problems need to be determined where they are and placed in their proper perspective and then ways and means worked out for their solution.

It was felt that this Committee has been working on a number of these listed suggestions in Missouri for some time. Varying degrees of success have been realized. The Committee expects to continue its efforts to determine the major rural health problems in Missouri and to effectively seek their solutions.

To assist the Committee in better assaying and solving rural health problems in Missouri, it was unanimously agreed to establish an Advisory Committee composed of some eight or ten people selected on an individual basis who, in the Committee's opinion, will be able to offer sound, practical advice and suggestions for rural health problems' solutions over Missouri.

The names of suggested members for this Advisory Committee are to be sent to the Chairman by other members of the committee. When such an Advisory Committee is selected, contacted and acceptance received, a meeting of the Rural Health Medical Service Committee and its advisory group will be called.

It is felt that such an Advisory Committee will serve as an excellent sounding board for continued committee projects and efforts and to explore areas where private medicine can be of better service to the rural people of Missouri.

Members of this Advisory Committee may well consist of a minister or priest, farmer, newspaper editor, business man. Members of the Advisory Committee are not necessarily to be picked as a representative of any particular organization but more upon the basis of individual ability to contribute constructive ideas on rural health problems in this state and their solutions.

A. E. Spelman, Chairman,
B. J. Bass,
W. J. Shaw,
John F. Pearl,
Charles H. Lewellen,
C. A. McBurney,
A. J. C. McCallum,
Jack Mullen.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on American Medical Education Foundation, James P. Murphy, M.D., St. Louis, follows:

REPORT OF THE COMMITTEE ON AMERICAN MEDICAL EDUCATION FOUNDATION

During the year of 1956, the Committee appointed by the President did not formally meet but maintained close contact with both the state office and the state chairman on two occasions during the year, and the state chairman attended the annual meeting in Chicago on January 27, 1957.

The Fund Campaign in Missouri this year was confined largely to a mail appeal sent to all members of the state organization. In addition, there were mail appeals from the Chicago office; also, several talks given in district and county society meetings and information was disseminated at staff meetings, the State Association meetings and councilor districts.

It is not possible at this time to give a complete report of the total amount contributed for medical education from the physicians of Missouri. The amount given through Alumni Funds to the various schools located in this state is not available as yet. However, it is encouraging to note that contributions by Missouri physicians directly to the American Medical Education Foundation rose from $5,929.64 in 1955 to $7,484.50 in 1956. Also, it is good to see that the number of physicians contributing rose from 157 in 1955 to 229 in 1956. The total will prove to be a larger amount because a proportionate increase in the amount given through the various Alumni Funds during the last year is expected.

At the meeting of the state chairmen in Chicago on

January 27, 1957, it was noted that now there are ten states which have a direct assessment or part of the dues given to the American Medical Educational Foundation. Illinois was a pioneer in this respect and, in turn, has been followed by many of the other states. The delegates and state chairmen of these states felt this was a more equitable form of giving and certainly is deserving of every consideration. At this state chairmen meeting, it was also interesting to note that the funds given by physicians through the American Medical Education Foundation now are being distributed by them and not channeled through the National Fund for Medical Education. It was also good to note that the amount available for distribution as of January 1, 1957, was well over a million dollars which represents the largest amount available to date.

Finally, sincere thanks must be given to the loyal Auxiliary which both on a state and national level are contributing ever more to this project. They have adopted the American Medical Education Foundation as their number one project and are doing a most excellent job in this regard. It is estimated that the Auxiliary throughout the United States will contribute well over $120,000 during the year of 1957.

James P. Murphy, Chairman,
Carl K. Ness,
Donald F. Gose,
Carl Ferris.

The Speaker referred this report to the Reference Committee on Medical Education and Public Welfare.

The report of the Council, W. F. Francka, M.D., Hannibal, Chairman, follows:

REPORT OF THE COUNCIL

The Council met at the Coronado Hotel, St. Louis, on July 7, 8, 1956, with W. F. Francka, M.D., Hannibal, Chairman, presiding. Those present were: Drs. Francka; Donald M. Dowell, Chillicothe; Joseph C. Creech, Troy; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; B. E. DeTar, Joplin; Ben M. Bull, Ironton; Carl F. Vohs, St. Louis; E. Royse Bohrer, Jefferson City; W. S. Sewell, Springfield; Durward G. Hall, Springfield; Joseph C. Peden, St. Louis; Daniel B. Landau, Hannibal; Thomas Thale, St. Louis; Henry Allen, St. Louis; James R. Amos, Jefferson City; Messrs. John W. Noble, Kennett; John Buckner, Springfield; W. H. Bartleson, Kansas City; Lemoine Skinner, Jordan Singleton, Raymond McIntyre, Tom O'Brien, St. Louis.

V.A. CONTRACT

The renewal of the contract with the Veterans Administration on home town care was discussed and on motion of Dr. Sewell, it was voted to renew the contract.

TREASURER'S REPORT

The Treasurer's report was read, it indicating that the Association was in satisfactory financial condition. On motion of Dr. Bohrer, the report was accepted.

FIELD SECRETARY'S REPORT

Mr. McIntyre reported that there had been fewer contacts from young physicians wishing locations in Missouri, however, there have been physicians located in Mountain View, Marceline, Campbell, Rolla, Tipton, Jefferson City, Shelbina, Ballwin, Valley Park, Salem, Monett, Caruthersville, Louisiana, Eldon, Marble Hill, Marshall and Sedalia. He reported on hospital construction: construction begun on 31 bed hospital in Albany; Eldon seeking funds for hospital; Boone County Hospital to be expanded from 82 to 250 beds; Cassville Hospital closed; Ray County Hospital of 35 beds to be completed the middle of September; Sisters' Hospital in St. Joseph raising money to expand; Methodist Hospital of St. Joseph had bought Mercy Hospital, building new wing of 28 beds; Fairfax Hospital recently completed an addition; Ste. Elizabeth Hospital in Hannibal is expanding; Jefferson County Hospital to be completed by January 1; Jefferson City is to build new hospital; Rolla is adding a floor to the hospital; Mountain View Hospital is now under a Catholic order; new hospital being contemplated at Brookfield; a campaign for a hospital at Sweet Springs is in process; contract for a hospital in West Plains is expected to be let in the late fall; a new 45 bed addition is being planned for the Independence Sanitarium and Hospital; 14 beds are being added to the Excelsior Springs Hospital; a 100 bed hospital being constructed in North Kansas City; 79 beds being added to the Southeast Hospital at Cape Girardeau; Wright Memorial Hospital at Trenton is adding 35 beds; promotion of a new hospital at St. Charles is underway; Bothwell Hospital at Sedalia is planning expansion, as well as Burge Hospital in Springfield; Freeman in Joplin and the Callaway County Hospital at Fulton. Meetings since the last Council meeting were reviewed. On motion of Dr. Stauffacher, the report was accepted.

The Chairman of the Council presented a supplemental report.

A.M.A. REPORT

Dr. Hall reported on the 1956 session of the American Medical Association, presenting copies of his report to members of the Council. Dr. Peden called attention to the Student A.M.A.'s activity in raising a loan fund for medical students who need financial aid and the recommendation of a reference committee that the Board of Trustees of A.M.A. give to this fund. He said it was stressed at the session that doctors must retain an active interest in prepayment plans. He also called attention to the fact that this is Dr. McVay's last year of his term on the Board of Trustees. It was felt that some special activity of the Missouri delegates was indicated and on motion of Dr. Sewell, it was voted that hospitality be extended at the Seattle or New York session. (A complete

Work of the Council during the year was reported.

report of Delegates to the A.M.A. session was published in Missouri Medicine, in the September issue, page 782.)

LEGISLATION

H.R. 7225 was discussed and a letter from the A.M.A. calling attention to the new provision of a separate fund was read. Mr. O'Brien read letters that had been written to Senators Hennings and Symington and asked that Councilors write immediately and ask other physicians to do so. H.R. 9429 was discussed, it being pointed out that regulations have not as yet been issued as to how the Defense Department will handle this problem. On motion of Dr. Sewell, it was voted to ask members of the Committee on Medical Economics to attend a meeting in Chicago on July 28 and 29 at which this will be discussed.

PRECEPTOR PROGRAM

The establishment of the preceptorship program of the University of Missouri was reviewed, the Council having recommended that the University establish such a program and be responsible for it, the Association furnishing lists of physicians from whom preceptors may be selected. It was announced that preceptees are now with Drs. J. H. Trolinger, Jackson; P. V. Siegel, Smithton, and Kenneth Glover, Mount Vernon. Seven students have elected to take this program and a sufficient number of preceptors have agreed to take students. It was felt that selection of further physicians for this could be delayed until a later time. Mr. McIntyre reported on visits to the three physicians serving as preceptors at the present time and that it was quite successful.

DOCTORS DRAFT

Dr. Henry Allen reported that in testimony given by Dr. Rusk, it was said that in order to defer 500 interns for internships, it would be necessary to call physicians in categories 1, 2 and 3; that in 1957 the need can be met and that probably after that time there may be no Doctors Draft law.

INDIGENT CARE STUDY

The report on the indigent care survey, made at the last Council meeting, was reviewed in which it was brought out that the survey was inadequate but pointed up the need for further study. Mr. O'Brien called attention to a vendor act which some ten states have in which federal money is made available for medical care on a matched money basis, the money going directly to the person giving the care. He pointed out that there is a provision in H.R. 7225 relative to this program. Mr. McIntyre reviewed the work of committees in the Health Council and called attention to H.R. 9091, which would furnish, in matched money with the state, $96 per year for recipients of old age assistance and $48 for dependent children. The care of indigents in the state was discussed. Mr. McIntyre called attention to two health research projects being undertaken, one in Kansas City which will include the State of Kansas and western Missouri, the other a study of the hospital and health needs of the City of St. Louis, together with resources and facilities available to meet needs.

JOINT LICENSURE

The action of the House of Delegates in regard to single licensure legislation was reviewed, the reference committee report which was adopted being:

"The Reference Committee has reviewed the Report of the Council and the Supplemental Report pertaining to the single licensure of all persons who render health care to Missouri. In the Supplemental Report of the Council and in the Report of the President of the Association, it has been pointed out that there is apathy on the part of the profession toward the single licensure proposal and in some instances, active opposition. The Committee, therefore, recommends that the Council again present the facts concerning single licensure to the membership in an effort to obtain greater understanding and knowledge of the basic problem. After this education effort the Council should attempt to secure from the membership an expression of their desire for further action through any means deemed advisable including a direct or indirect poll of the membership to determine the extent of their support. If the result is favorable, then the previously approved policy of the Council should be reaffirmed and the Council should reintroduce legislation at an appropriate time similar to that previously proposed."

Mr. Skinner presented a suggested letter to accompany explanatory material and a postcard questionnaire to go to members. After reviewing the material, on motion of Dr. Dowell, it was voted to send the letter, material and questionnaire to the membership so that returns may be in the hands of the Council at the meeting.

BLUE SHIELD

The proposed service contract by St. Louis Blue Shield was reviewed briefly.

WORKMEN'S COMPENSATION

The resolution, adopted by the House of Delegates was presented. After discussion, on motion of Dr. Vohs, it was voted to appoint a committee to study the present laws and make recommendations to the Council.

COMMITTEE ON INFANT AND CHILD CARE

Dr. Landau presented a report of the Committee on Infant and Child Care. After discussion, on motion of Dr. Bohrer, the portion dealing with the change in handling of polio vaccine was approved. After discussion, on motion of Dr. Stauffacher, it was voted that the Division of Health be asked to send a letter to schools with "Suggested Standing Orders for First Aid and Emergency Illness for Children in School." After discussion, on motion of Dr. Sewell, it was voted that the President write component societies suggesting the appointment of a committee to study health problems of the school age child. The health education workshops which have been held were discussed, Mr. Buckner being asked to tell of the one in Springfield in which he stressed the great advantage of doctor participation. On motion of Dr. Dowell, the report as a whole was accepted.

COMMITTEE ON MENTAL HEALTH

Dr. Thale reported for the Committee on Mental Health. After discussion of previous legislation, the present recommendations of the Committee, regarding a director of the Division of Mental Diseases, on motion of Dr. Dowell, was approved. The recommendation concerning facilities for mentally disturbed children, on motion of Dr. Sewell was approved. On motion of Dr. Stauffacher, the report as a whole was approved.

DIVISION OF HEALTH

Dr. Amos reported on activities of the Division of Health, thanking the Council for the cooperation of the medical profession in the polio program; reporting on surveys that are underway toward a hospital planning program for the state; work in trachoma and surveys that are being made; water pollution control work; hospital licensing program; Civil Defense and mental hygiene preventive program. On motion of Dr. Dowell, it was voted that the Council recommend that a salary be paid the Director of the Division of Health that is commensurate with his ability.

AUXILIARY BULLETIN

Dr. Vohs reported that the Woman's Auxiliary wishes to send its Bulletin to all physician's wives in the state in addition to its own membership and asked the Association to take care of the cost. On motion of Dr. Sewell, it was voted to do so.

NEXT MEETING

The next meeting was set tentatively for September 22 and 23.

Meeting of September 22, 23

The Council met at the Coronado Hotel, St. Louis, September 22, 23, 1956, with W. F. Francka, M.D., Hannibal, Chairman, presiding. Those present were: Drs. Francka, Donald M. Dowell, Chillicothe; R. O. Muether, St. Louis; J. C. Creech, Troy; James W. Allee, Columbia; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; B. E. DeTar, Joplin; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Carl F. Vohs, St. Louis; W. S. Sewell, Springfield; E. Royse Bohrer, Jefferson City; Jerome I. Simon, St. Louis; Henry C. Allen, St. Louis; Messrs. John W. Noble, Kennett; John Buckner, Springfield; William H. Bartleson, Kansas City; Lemoine Skinner, Jordan Singleton, Raymond McIntyre, T. R. O'Brien, St. Louis.

PRACTICAL NURSE ADVISOR

A request from the Missouri State Association of Licensed Practical Nurses for a physician to be appointed to serve as advisor to the new Jefferson City Chapter was read. The name of John I. Matthews, M.D., Jefferson City, was suggested.

NATIONAL SOCIETY FOR MEDICAL RESEARCH

A request for continued aid to the National Society for Medical Research was presented and it was agreed that a contribution should be made again this year in the amount of $50.00.

UNIVERSITY ADVISORY COMMITTEE

Dr. Vohs reported that he had been requested to serve on an advisory committee to the University of Missouri School of Medicine on which the President and President-elect of the Association would be members. He advised the Council that he would accept the appointment.

TREASURER'S REPORT

The Treasurer's report was presented, giving the present financial status. On motion the report was accepted.

FIELD SECRETARY'S REPORT

Mr. McIntyre reported on the exhibit at the State Fair, on "Food Facts and Fallacies" which had been obtained from the A.M.A., and showed pictures taken there and literature that was distributed. He said that the Pettis County Medical Society manned a clinic at the Fair and complimented them on this free public relations service. He suggested that county fair exhibits be considered by county medical societies.

The Public Relations Institute held at the A.M.A. August 29, 30, was reported, and the presentation on the pre-med day for senior high school students held at Central College was reported. He called attention to the present interest in Science Fairs and suggested that more interest be taken by county medical societies. He reported on the dedication of the $600,000 building, headquarters of the A.A.G.P., in Kansas City on September 1, and said that James R. McVay, M.D., was cited during the meeting.

New physicians locating in Missouri were reported.

The University of Missouri postgraduate work for the year was presented as being programs on two Thursday afternoons a month, one a CPC and one a wet clinic.

Mr. McIntyre said that at present one preceptee was with a physician in the state, that seven of twenty-one seniors had elected this in the present class and that as larger classes developed there would be need for more preceptors. The preceptor situation was reviewed and discussed. Following discussion, on motion of Dr. Muether, it was voted that the Committee on Medical Education and Hospitals contact all members by letter with replies going through the respective Councilors, and obtain the names of preceptors who are willing to serve. It was further recommended that the preceptor programs in other states be studied by the Committee.

A.M.A. DUES COLLECTING

The collection of the A.M.A. dues was reviewed, it being pointed out that in 1948 when they were established, state and county bills had already been sent and many of them paid, so MSMA sent out a separate bill. It was pointed out that since much of the A.M.A. correspondence goes directly to the member and the county society secretary is contacted on it, some confusion has resulted. Most of those present spoke on the subject and after discussion, it was voted, on motion of Dr. Sewell, that the A.M.A. dues be collected on the local level, effective January 1, 1957.

POLL ON SINGLE LICENSURE

Mr. O'Brien presented the results of the poll of members on the single licensure legislation as follows:

Background material and ballots were mailed to all members on August 31, 1956. Following are the returns as of September 18.

Cards mailed	3,750
Cards returned	1,806
Per cent returned	48.1

The ballots contained three questions:

I favor the single-license proposal.
I oppose the single-license proposal.
If the proposal is reactivated, I will give it definite and active support.

Spaces were also provided for remarks and signature. Results:

Favor	626	34.6%
Favor and will support	1,021	56.5%
Total For	1,647	91.1%
Opposed	141	7.8%

(Unless the card indicated definite opposition, those who checked only the "support" question were counted as favorable. Those who indicated opposition, but who also checked the "support" question were counted as Miscellaneous. There were 18 ballots counted as "Miscellaneous," including those impossible to classify.)

Of the 1,806 cards received, 1,383 were signed. Of these, 838 indicated that the signer would give the bill definite and active support. There were 97 signed cards in opposition.

Some of the remarks written on some of the cards indicate a certain amount of confusion about what the bill seeks to accomplish.

He gave a list of pertinent comments made by various members and these were discussed.

A suggested program of procedure was presented, should the Council elect to proceed with legislation.

It was pointed out that attitude might depend to some extent on the situation on other legislation which would be discussed and it was decided to delay action until later in the meeting.

DOCTOR'S DRAFT

Dr. Allen reported that he expected no activity in the draft until after November 6, and probably not until after the first of the year. He reported that indications were that sufficient doctors will be obtained through the regular draft after the first of the year.

NORTH CENTRAL BLOOD BANK

A request from the chairman of the Committee on Laboratory Medicine that $1,000 be lent the North Central Blood Bank Clearing House was presented, as having been approved by the Committee. After discussion in which it was brought out that only three hospitals in the state were using the Clearing House at present, it was moved by Dr. Muether, seconded by Dr. Bohrer, that $500 be lent. On vote the motion lost.

PUBLIC LAW 596

A report of the Committee on Medical Economics was presented defining the law passed by the last Congress and which takes effect on December 8, as follows: "To create and maintain high morale throughout the uniformed services by providing an improved and uniform program of medical care for members of the uniformed services and their dependents." The program covers dependents requiring hospitalization. The only office procedures included are for emergency accidents and for antepartum and postpartum, care of maternity cases. It was pointed out that there are approximately 2,600,000 dependents eligible for medical care, of whom 800,000 will receive care in civilian facilities. A series of meetings with the Department of Defense and A.M.A. were reported and it was pointed out that the A.M.A. would like to have as soon as possible the name of the state agency which will sign the contract, the name of the fiscal agent and a fee schedule. It was reported that 80 per cent of the states were naming the state medical association as contracting agent, that most states have named Blue Shield as fiscal agent. A fee schedule on 200 items which the Defense Department has particularly requested was presented, it being pointed out that the Committee had studied the Kansas City Blue Shield $5,000 income limit plan, the Columbus, Ga., plan, the preferred schedule of Medical Indemnity of America, the $300 preferred plan of the St. Louis Blue Shield and the California unit value system in arriving at the figures presented.

CONTRACTING AGENT

On motion of Dr. Dowell, seconded by Dr. Perry, it was voted that MSMA be the contracting agent.

It was pointed out that a resolution dealing with this act was submitted to the House of Delegates of MSMA. The resolution was unanimously approved by the House and appears on page 568 of Missouri Medicine, July, 1956.

FISCAL AGENT

On motion of Dr. Bull, seconded by Dr. Summers, it was voted that the two Blue Shield plans of Missouri be asked to serve as fiscal agents.

FEE SCHEDULE

On motion of Dr. Creech, seconded by Dr. Dowell, it was voted that the tenative fee schedule submitted by the Committee on Medical Economics be used for the purpose of negotiations.

REPRESENTATIVES

On motion of Dr. Dowell, it was agreed that representatives of the Association to deal with the Department of Defense should be the Executive Secretary, the Chairman of the Committee on Medical Economics and the Association attorney.

H.R. 7225

H.R. 7225, which was passed by the last Congress was discussed, it being pointed out that one of the provisions would be the examination of applicants for cash disability by doctors. It was pointed out that the "disability freeze" had been handled in Missouri by the Division of Vocational Rehabilitation in the Department of Education and that probably this would be handled in the same department. The appointment in 1955 of a medical advisory committee to that department was helpful but it was felt that probably the committee should be set up by law now, which should be done in the next session of the legislature.

It was pointed out that under another section of H.R. 7225 there is a provision for a direct federal grant to states on a matching basis of $3 per month per welfare patient and that payment would be made direct to the vendor, nurse, doctor, hospital or pharmacist for services provided in medical care of welfare recipients.

PHYSICAL THERAPY

A letter outlining the desire of physical therapists for a state examining board was read. It was suggested that more information be obtained and on motion of Dr. DeTar action was tabled until the next session of the Council.

NARCOTIC LAW

It was pointed out that the State narcotic law did not coincide with the federal law, especially in the telephoning by physicians of certain prescriptions. It was agreed that more information is needed on plans of the pharmacy group before action could be taken and that it should be considered at the next Council meeting.

DR. ALLEE'S RESIGNATION

Dr. Allee reported to the Council that he was closing his practice the last of October and opening practice in Florida December 1, and therefore wished to resign from the Council. On motion of Dr. Dowell, the resignation was accepted with regrets.

MR. FORISTEL

Mr. James W. Foristel, Legal Advisor, A.M.A. Washington Office, was introduced and reviewed recent legislation and present trends in legislation. He said that all states except three have agreed to cooperate with the Department of Defense as set out in Public Law 569. Those three have not as yet reported to the A.M.A. In all but seven states Blue Shield has been asked to serve as the fiscal agent.

PUBLIC LAW 569

Mr. Foristel said that there probably were 20,000 military dependents in Missouri, estimated that half would go to military facilities and that 1/5 would be hospitalized during a year, so the number actually concerned was not large. He said that legislation covering all federal employees will be presented in the next session of Congress and that this number was approximately two and a half million, plus their dependents.

H.R. 7225

Public assistance recipients were discussed by Mr. Foristel who estimated the total number in Missouri as 212,036, saying that if the state matched federal funds it would amount to $12,722,160 annually for public assistance recipients.

It was suggested that the Committee on Medical Economics be asked to study the cash grants to states contained in H.R. 7225; that the Committee on Physical Medicine be asked to study the disability phase of H.R. 7225. It was also agreed that a general letter should go to all members striving to acquaint them with recent legislation and future trends.

DR. AMOS

Dr. Amos reported on recent trachoma work, saying that most of the state had been covered with clinics for the detection and diagnosis of trachoma and gave figures on the findings as follow: 1,741 seen in clinics, 702 old nonactive cases, 67 new nonactive cases, 42 suspects, 56 needing surgery and 4 active cases. As a result of these studies, the Trachoma Hospital at Rolla has gradually reduced its load and will be used only for out-patient clinics in the near future.

A recent meeting of the hospital advisory committee was reported by Dr. Amos and he reported that some minor changes were suggested in the rules and regulations covering hospital licensing.

SINGLE LICENSURE BOARD

On motion of Dr. Dowell, seconded by Dr. Muether, it was voted that in view of the instructions of the House of Delegates that a poll of the membership be taken and since that poll showed 91.1 per cent of a 48.1 per cent return indicated favoring the reintroduction of legislation toward a single licensing board, that such legislation be introduced in the 1957 session of the legislature.

PROGRAM

On motion of Dr. Muether, seconded by Dr. Dowell, it was voted to implement the proposed program as presented at the Saturday meeting.

BUDGET COMMITTEE

The Chairman appointed the following Budget Committee: Drs. Simon, chairman, Vohs, Sewell, Stauffacher, Bull, and the Chairman, ex officio.

COMPENSATION LAWS

The Chairman appointed the following committee to study the compensation laws in Missouri, as instructed by the House of Delegates: Drs. Harry M. Roebber, Bonne Terre, Chairman; Victor E. Scherman, St. Louis; John W. Growdon, Kansas City; Carl J. Reis, St. Louis; Carl F. Vohs, St. Louis; W. S. Sewell, Springfield; W. F. Francka, Hannibal, ex officio.

FIFTH DISTRICT COUNCILOR

On motion of Dr. Bohrer, seconded by Dr. Dowell, Byron M. Stuart, M.D., Boonville, was appointed to fill the term of Dr. Allee, resigned, until the next meeting of the House of Delegates.

NEGOTIATING COMMITTEE ON PUBLIC LAW 569

After discussion, on motion of Dr. Vohs, properly seconded, it was unanimously agreed that the Negotiating Committee should have wide latitude in its negotiations but that no changes in the proposed fee schedule be made by the Negotiating Committee. In the event the Department of Defense is unwilling to accept the proposed fee schedule, a special meeting of the Council shall be called for the purpose of further consideration.

NEXT MEETING

The next meeting of the Council was discussed and although there are conflicts in dates, it will probably be held November 17 and 18.

Meeting of November 17, 18

The Council met at the Coronado Hotel, St. Louis, Nov. 17, 18, 1956, with W. F. Francka, M.D., Hannibal, Chairman, presiding. Those present were Drs. Francka, Donald M. Dowell, Chillicothe; R. O. Muether, St. Louis; Joseph C. Creech, Troy; Byron M. Stuart, Boonville; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; B. E. DeTar, Joplin; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Carl F. Vohs, St. Louis; W. S. Sewell, Springfield; E. Royse Bohrer, Jefferson City; Jerome I. Simon, St. Louis; Messrs. John W. Noble, Kennett; John Buckner, Springfield; W. H. Bartleson, Kansas City; Hollister Smith, St. Louis; Lemoine Skinner, Ed Schneider, Jordan Singleton, Ray McIntyre, Tom R. O'Brien, St. Louis. Present for a part of the meeting were Drs. O. B. Crawford and W. W. Tillman, Springfield; Henry Allen and Dean Sauer, St. Louis; Richard H. Kiene, Kansas City.

MIDWEST CONFERENCE

A letter from the Arkansas Medical Society suggesting that a Midwest Conference of Medical Associations be established was read. After discussion, on motion of Dr. Sewell, it was voted to obtain more information.

FIELD SECRETARY'S REPORT

Mr. McIntyre called attention to the decreasing attendance at several of the larger meetings, the Mississippi Valley Medical Society, the Southwest Clinical Society, the Clay County Conference and the Cape Girardeau Cancer Conference, while attendance at many county medical societies is increasing. In discussion it was brought out that refresher courses and the meetings accredited by the MAGP made a great difference along with increasing meetings of specialty groups. He called attention to the relationship of physicians and druggists and gave objections made on both sides as: dispensing by physicians and substitution and high cost of drugs pertaining to druggists. It was brought out that local circumstances usually influence dispensing by physicians. The Code of Medical Ethics which is under advisement by the A.M.A. in the "income from practice only" was discussed briefly. Mr. McIntyre referred to and read portions of an article in *Collier's,* November 23, "How Does Your Income Compare With Others?" The article showed that doctors had the highest income of any professional group at the present time. Objection was made that the article referred only incidentally to the years of training, the late age at which doctors began to earn and the long number of hours doctors work.

PUBLIC LAW 569

It was reported that since the original request that 200 items in the schedule of allowances to be presented to the Department of Defense, it was now requested that all items, or 1400 additional ones, be filled in. It was suggested that this be done on a unit basis following the California relative value plan. It was reported that other states which have completed negotiations had done this with a unit value as a basis. It was pointed out that the 200 items would cover 95 per cent of procedures in practice.

Dr. Crawford, who had been in Washington recently, told of his findings in connection with the negotiating with the Department.

The following results of a poll of the membership asking approval or disapproval of the Council's action in going ahead with the negotiation was presented.

Public Law 569
Poll of MSMA Membership

Councilor District	*In Favor*	*Opposed*
First	100	6
Second	39	3
Third	350	97
Fourth	141	27
Fifth	71	14
Sixth	69	7
Seventh	271	21
Eighth	132	9
Ninth	30	2
Tenth	85	4
	1,288	190

One thousand four hundred and seventy-eight doctors participated, and the result shows 87 per cent in favor.

Cards returned improperly marked, unsigned or illegible—34.

Action was delayed until further presentation would be made.

TREASURER'S REPORT

Dr. Simon gave the report of the Treasurer as to balances on hand, showing the Association in good financial condition.

BUDGET

Dr. Simon presented the following budget, which on his motion, was adopted:

	Proposed Budget for 1957
Salaries	$ 52,460.00
Journal Expense	33,500.00
Postage, Printing and Stationery	5,000.00
Travel: Exec. Secretary	1,500.00
Travel: Field Secretary	3,300.00
Telephone & Telegraph	1,500.00
Office Rent and Light	4,700.00
Meetings and Committee Expense	25,400.00
Defense	500.00
Scientific and Pg. Work	500.00
Woman's Auxiliary	1,200.00
Public Relations	7,500.00
Insurance Annuity	2,700.00
Miscl. Gen. Expense	3,325.00
Furniture and Fixtures	500.00
Social Security Tax	650.00
Unemployment Tax	650.00
Legal Expense	3,200.00
Total	$148,085.00

Dr. Simon explained in presenting the budget that additional personnel was needed and provided for in the budget; that additional space for the office, together with remodeling, was included.

ASSESSMENT

Dr. Dowell moved that an amendment to the bylaws be presented to the House of Delegates making the dues include the present assessment and the motion was passed.

PUBLIC LAW 880

The portion of the law in which the government will match state funds up to $3 per month, per person on a vendor plan payment for medical care of Public Assistance Recipients was reviewed. This would re-

for a spastic
GUT

Trasentine®-Phenobarbital

integrated relief . . .
mild sedation
visceral spasmolysis
mucosal analgesia

TABLETS *(yellow, coated), each containing 50 mg. Trasentine® hydrochloride (adiphenine hydrochloride CIBA) and 20 mg. phenobarbital.*

CIBA
Summit, N. J.

2/2225M

quire state legislation to set up a vendor system, and also to make appropriation for matching fund. It was pointed out that the Committee on Medical Economics had requested that delegates to the A.M.A. and Mr. O'Brien contact persons from other states during the A.M.A. session, especially those that at present have such legislation including the State of Washington, and that the Committee then will study this information and make recommendation to the Council.

The portion of Public Law 880 dealing with disability payments under Social Security at age 50 was discussed, it being stressed that the original examining physician made no recommendations. Portions of the law apply to children who, along with older persons, will be referred to a rehabilitation agency, which at present is under the State Department of Education. The Medical Advisory Committee on Rehabilitation was discussed and it was reported that the Committee on Physical Medicine and Rehabilitation was contacting members of that body and then might recommend that the Advisory Committee have legal status. It was pointed out that the whole law needed great consideration and explanation to the membership.

DOCTOR DRAFT

Dr. Allen reported that there would be a conference soon on the Doctor Draft but that the feeling was it would go out of existence on July 1. He said some residents were being called and deferment was being asked until July. He said there was a 22.7 per cent increase from 1950 in interns and 40 per cent increase in house staffs, with a 15.8 per cent decrease in citizen house staff and 280 per cent increase of aliens on house staffs.

DR. SAUER

Dr. Sauer addressed the Council on Blue Shield and Public Law 569. He reviewed that in April 1956 the Council and House of Delegates of the M.S.M.A. approved in principle a service plan and recommended that Blue Shield present the plan to county societies when developed; that in January 1956 Blue Shield had a meeting at which physicians were told that times were changing, that management and labor wanted fixed fees and that medicine was not giving them what they wanted. He said the St. Louis Medical Society tried to acquaint its members with what a service plan is and at a special meeting the Society voted overwhelmingly to oppose the principle of a fixed fee plan. He said he felt that if patients and management understood that it meant a socialized plan, they would oppose. He said the medical service rendered by a physician is his private property and establishing a fixed fee principle is socialized medicine.

On Public Law 569, he said that if membership understood just what it was voting for, the poll which was taken would have been different. That the law delegated rights of the physician to a third party; that the physician could bill the government direct. He said that it should be accepted under protest, if at all; recommended waiting six months before negotiating with the Defense Department and find out at that time how physicians felt. He said it not only influenced the physician but took the right of the individual away, implying that if the uniformed person were paid a high enough stipend, he would then use it for medical payment. He said that each physician could negotiate direct as he did each day with patients; that physicians are underwriting their own doom and therefore the doom of the patient.

He recommended that the Council not act as negotiating agent and that the matter go back to the House of Delegates for rescinding of its action at the 1956 session.

Each of the Councilors and officers present were given opportunity to speak and several discussed the law briefly.

UNIT VALUE

Minutes from the last meeting of the Council were asked for in regard to instructions to the negotiating committee which restricted them in making any change in any fee. It was pointed out that the filling in of the additional 1400 items made it incompatible to have the committee so limited and on motion of Dr. Dowell, this action of the Council was rescinded.

DRUG LAW

It was reported that the Missouri Pharmaceutical Association is working on a proposed act so that state laws will conform with national laws and they will discuss the act with the Council when it is prepared.

COLLECTION OF DUES

A letter from the St. Louis Medical Society was presented setting out two resolutions stating that the Society did not wish to collect A.M.A. dues nor M.S.M.A. dues. After discussion from Dr. Muether and Mr. Smith, on motion of Dr. Sewell, it was voted to decline the request from the St. Louis Medical Society.

PHYSICAL THERAPIST LICENSURE

The report of the Committee on Physical Medicine recommending approval in principle of a bill which had been presented to them for study dealing with the licensure of physical therapists was presented. Dr. Muether felt that with the introduction of the single licensure bill it was inappropriate to approve a bill setting up an additional examining board; also that other allied fields would probably then wish to be licensed, such as medical technologists. On motion of Dr. Perry, it was voted to table the recommendation until the Chairman of the Committee could be present to give more information.

OPHTHALMIC DISPENSING BILL

A bill directed toward the establishment of an Ophthalmic Dispensing Board to license dispensers was presented with the information that it had been approved by the Kansas City and St. Louis Ophthalmic societies. On motion of Dr. Sewell, seconded by Dr. Bohrer, the bill was approved in principle.

CEREBRAL PALSY, INC.

Dr. Vohs reported a letter from the United Cerebral Palsy of Missouri, Inc., which explained the setting up of a medical-professional advisory board and inviting Dr. Vohs to be present at an organizational meeting in Columbia on December 9. Approval was expressed and Dr. Vohs asked Dr. Bohrer to represent him as Dr. Vohs will be out of the state at that time.

OUTPATIENT CARE

A letter and questionnaire addressed to hospital administrators from the Health Insurance Council of Yew York was presented. It dealt to some extent with insurance coverage of the outpatient and this was discussed from the standpoint of showing a trend of more and more hospital outpatient department care and its influence on private practice. It was asked that results of the questionnaire be obtained.

BLUE SHIELD

A resolution passed by the St. Louis County Medical Society opposing a service plan by Blue Shield was read. Also excerpts from the minutes of the St. Louis Medical Society meeting of October 16 were read as follows:

NEW BUSINESS
GENERAL SOCIETY MEETING
October 16, 1956

Walter T. Gunn.

From all that has gone on, it is evident that both the doctors and the patients of eastern Missouri are not entirely satisfied with the present functioning of our Blue Shield Plan. If we are to continue to sponsor Blue Shield, it should be revised into the best conceivable health insurance plan which would, on its own merits, attract the widest possible acceptance.

Inasmuch as the Council of the St. Louis Medical Society is, at present, empowered to act as a liaison committee with the Blue Shield of St. Louis, we, therefore, move that:

2. The Council be advised that it is the will of the Society that they investigate the present functioning of the Blue Shield organization and its health insurance coverage.

3. We further move that they obtain the services of a professional insurance counsellor and give special emphasis to the investigation of deductible type plans.

4. We further move that the Council report to the Society on the progress of this study and submit their recommendations for possible improvements within six months of this date.

Dean Sauer.

5. Since the St. Louis Blue Shield Medical and Surgical Plans are represented to the public as the doctors' own plans, I move that the Missouri Medical Service, Inc., be informed through our council that it is the desire of the St. Louis Medical Society that all physician members of the voting and corporate boards of the Missouri Medical Service be elected proportionately by the local medical societies of the geographical area covered by this corporation.

6. It is the further wish of this Society that the Missouri Medical Service take immediate action to amend its bylaws as necessary in order to implement this desired plan for elective representation of the physicians it serves.

R. Bruce McCloskey.

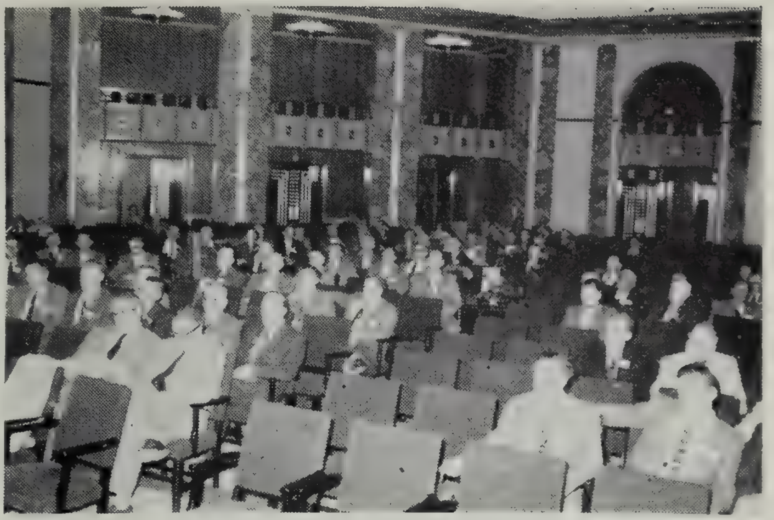
7. Since it has been overwhelmingly demonstrated that the St. Louis Medical Society is vigorously opposed to the service or fixed fee type of insurance plan and since the advocates of the service type plan draw upon the vote of the state delegates to the last meeting of the state medical society as their authority to develop such a plan, we, therefore, move that the delegates of the St. Louis Medical Society who will attend the next state medical convention be instructed that it is the will of the Society that they take the necessary action to withdraw our support of the principle and go on record as opposing the principle of a service or fixed fee insurance plan.

This was discussed by several Councilors but the feeling was that more information was necessary and Dr. Muether suggested that Blue Shield be asked to give a break-down of the voting membership and the board "geographically and proportionately" to be studied at the next Council meeting.

ANNUAL SESSION PROGRAM

Dr. Kiene presented the scientific program for the 1957 Annual Session to the Council, calling special attention to the instruction courses that will be given on Tuesday morning of the session. The program as presented was approved.

Meeting of January 26-27



Audience was attentive in scientific session.

The Council met at the Coronado Hotel, St. Louis, on January 26, 27, 1957, with W. F. Francka, M.D., Hannibal, chairman, presiding. Those present were Drs. Francka; Donald M. Dowell, Chillicothe; R. O. Muether, St. Louis; Joseph C. Creech, Troy; Byron M. Stuart, Boonville; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; B. E. DeTar, Joplin; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Carl F. Vohs, St. Louis; E. Royse Bohrer, Jefferson City; Jerome I. Simon, St. Louis; W. S. Sewell, Springfield; Joseph L. Fisher, St. Joseph; James R. Amos, Jefferson City; Messrs. John W. Noble, Kennett; John Buckner and David Galbraith, Springfield; Hollister Smith, Edward Schneider, Lemoine Skinner, Jordon Singleton, Raymond McIntyre, Tom R. O'Brien, St. Louis. Drs. T. E. Sanders, St. Louis, and Thomas Thale, St. Louis, presented reports. Dr. Willard Bartlett, St. Louis, presented legislation to the council.

WOMAN'S AUXILIARY

A request was received for $400 from the Woman's Auxiliary for use in their convention and on motion of Dr. Sewell, this was approved.

A letter from Mrs. Armand Fries, St. Louis, President-elect of the Woman's Auxiliary, asking that an Advisory Committee composed of Drs. W. S. Sewell, Springfield, W. F. Francka, Hannibal, and Robert Mueller, St. Louis, be approved, was presented and on motion of Dr. Dowell, this committee was voted approval.

FIELD SECRETARY'S REPORT

Mr. McIntyre reported on meetings at the University of Missouri Medical School which are presented on Thursday afternoons twice a month; also that the University would be glad to furnish speakers for county society meetings. He said that Dr. Stuart planned a Fifth Councilor District meeting on February 28 at Columbia in connection with one of the Thursday presentations.

He discussed the preceptorships at the University of Missouri Medical School saying that there are now two preceptees, one with Dr. A. E. Spelman, Smithville, and one with Dr. R. R. Grayson, Perryville. He said there would be about 35 seniors next year and probably more preceptees than there had been this year. He said that in Kansas this plan was under the General Practitioner Academy sponsorship. He said that he was to speak to the Student Chapter A.M.A. at Columbia on March 5 on "Opportunities for Practice in Rural Missouri."

A meeting in Chicago, February 9 to 12, the 53rd Congress on Medical Education and Hospitals, was announced, as well as the Conference on Rural Health in Louisville on March 7 to 9.

Attention was called to a column in the *Missouri*

Ruralist furnished by the A.M.A. Council on Rural Health in cooperation with MSMA Rural Health Committee, also to the new format of the *Pettis County Medical Society Bulletin.* Dr. Stauffacher was congratulated on this Bulletin. He distributed copies of an article from *U. S. News & World Report* of January 25, on "Unfair to Doctors? In Britain, No Raise for Them in 5 Years."

PRECEPTORSHIPS

The method of obtaining preceptors was discussed, it being kept in mind that the University made the final decisions. After discussion it was voted on motion of Dr. Dowell that a letter go to members, not including Districts 3 and 7, explaining the plan and asking members to signify their desire to serve as possible preceptors, the replies to go to the state office which would clear with the Council and the Committee on Rural Health, and Education Committee of the General Practitioners, after which the Committee on Medical Education and Hospitals of the Association would present them to the University.

PICTORIAL STORY

Mr. Skinner suggested that the preceptorship offered material for a pictorial story in one of the newspapers, and this was approved.

MEDICARE COMMITTEE

Mr. O'Brien reviewed the negotiating of the Medicare contract and said that the contract required a committee to assist the fiscal agents principally in decisions on procedures not covered in the schedule. It was suggested that there be four from St. Louis including the chairman; four from Kansas City, including the co-chairman; and three from outstate. It was suggested that Dr. Simon be chairman, the outstate men Drs. Bohrer, Stauffacher and Crowe of Cape Girardeau. On motion of Dr. Dowell the appointment of the committee was approved.

DR. AMOS

Dr. Amos spoke briefly on the poliomyelitis serum situation, saying that there was a supply on hand. The closing of the Nichols Sanitarium at Savannah, Missouri, was announced.

CANCER COMMITTEE

Dr. Fisher presented the report of the Committee on Cancer which had met on January 20. He stressed especially the desire of the Committee to have space in MISSOURI MEDICINE regularly to present information on Cancer; the adoption of the project to send "Cancer News," to all members of the Association; a service for the study of cervical smears, which will be studied with the Committee on Laboratory Medicine before definite recommendation is made.

A Cancer Commission, as recommended by resolution of the A.M.A. and in the hands of the Board of Trustees for implementation, was recommended by the Committee. The attorney was asked to study the legal aspects; also the powers of the present State Cancer Commission.

BLUE SHIELD

As requested at the last meeting of the Council, a breakdown of the Voting Board and the Board of Trustees of Missouri Medical Service was presented together with a map showing location of the districts. It was shown, both by district and by total, that the M.D. representation on both the Voting Board and the Board of Trustees was in a ratio of two to one to lay members. It was stated that the Voting Board meets once a year, the Board of Trustees on call and the Executive Committee about once a month.

TREASURER'S REPORT

The Treasurer reported on the finances of the Association, showing operations to be within the buget.

A.M.A. DUES

A letter from the St. Louis Medical Society requesting that they be paid the 1 per cent paid by the A.M.A. for collection of A.M.A. dues was read. After discussion, on motion of Dr. Bull, it was voted that the money remain with the Association until a study now under way at the A.M.A. is completed. On motion of Dr. Muether, it was voted to urge the A.M.A. to pay for such collections on a cost basis.

CONSERVATION OF EYESIGHT

Dr. Sanders presented a report of the Committee on Conservation of Eyesight. He discussed S.B. 26, the optometry bill, and gave the Committee recommendation that the bill not be opposed. He reviewed a bill which the opticians propose to introduce and said the Committee recommended its approval. He reviewed the situation on eye examinations in connection with drivers' license examination and asked the advice of the Council on the Committee offering to be of service to the Highway Department in this regard. On motion of Dr. Vohs, it was voted to approve the Committee making this offer. On motion of Dr. Vohs, it was voted to approve of the Committee's recommendations on the dispensing optician's bill and that, if S.B. 26 is satisfactorily amended, no action be taken on it.

COMMITTEE ON MEDICAL ECONOMICS

The report of the Committee on Medical Economics was presented, together with S.B. 40 and S.B. 58, enabling legislation for a vendor program in Missouri. Various aspects of P.L. 880 were discussed, together with the majority and minority reports of the Committee, which were: Majority Report: "Traditionally the medical profession has provided care for indigent patients without charge. The medical doctors of Missouri are ready, as always, to continue this tradition of service to patients in need without regard to payment.

"There is, however, an apparent trend toward provision of public funds for the health care of indigent people. This trend has been embodied in social security legislation providing federal funds, to be matched by the states, to be paid for indigent health service. State legislation will be called for to implement the federal law.

"It is the strong feeling of the Committee that the proposed state legislation, in view of its importance to the public welfare and the individual patients who may receive care should include provision for the appointment of a medical advisory committee to consult with the advise the State Department of Welfare on matters affecting all phases of medical care."

The minority report read: "It is the feeling of the minority of the Committee, (1) that the legislature should be appraised of the potential cost of medical care as outlined in Section 208.150; (2) that physicians recognizing the growth in population of aged and disabled aged, suggest that provision be made in the rules and regulations implementing such legislation for payment to physicians for service rendered and that such payments should bear an equitable relationship to sums paid other vendors in the health and welfare field."

On motion of Dr. Bull, seconded by Dr. Perry, it was voted to accept the majority report, with emphasis on the inclusion of a medical advisory committee. A motion by Dr. Muether, seconded by Dr. Dowell, that the Council go on record to exert every effort to see that in the administration of the bill there be a pro rata distribution of funds, lost on vote.

A.M.A. LEGISLATIVE COMMITTEE

A letter from the A.M.A. requesting that a Legislative Committee be named was read. The names of Drs. Joseph C. Peden, St. Louis; Durward G. Hall, Springfield, and Ralph Perry, Kansas City, were suggested and on motion of Dr. Vohs, this appointment was approved.

SOCIAL SECURITY

A resolution adopted by the Jasper County Medical Society was presented by the Councilor of that district, requesting action toward gaining coverage in Social Security for physicians. After discussion it was decided that this should go directly from the Jasper County Society to the House of Delegates since it was the House that had taken previous action. It was stated that Jenkins-Keough bills, H.R. 9 and 10, had been introduced in the Congress and it was suggested that physicians write urging adoption of these resolutions.

CIVIL DEFENSE

The report of the Committee on Civil Defense was presented and on motion was accepted except the request for a budget for the Committee of $250.00. A separate request from the Chairman of the Committee that $200.00 be allowed to defray expenses for speakers at a dinner meeting of the Committee on Civil Defense at the annual session, after discussion, was approved.

COMMITTEE ON RURAL HEALTH

The report of the Committee on Rural Health Service was presented including a request for approval by the Council of the appointment of a lay advisory committee to meet with the Committee in discussion of rural health problems. On motion of Dr. Dowell, this was approved.

DRUGS

A bill which makes state laws concerning prescriptions conform to federal laws and which has been introduced in the legislature by the Division of Health, with the approval of the pharmaceutical group, was discussed briefly. On motion of Dr. Bull, the bill was approved.

OTHER LEGISLATION

Several bills were discussed briefly which either have been introduced or will be, including one to increase the salary of the Director of Health, one on a Commission on Study of Aging which the MASW is sponsoring, one on chiropody which probably will be introduced. Dr. Bartlett presented a bill on the licensing of electrologists, which on motion of Dr. Muether was referred to the legislative committee.

The incoming President receives the gavel.

MENTAL HEALTH COMMITTEE

Dr. Thale presented the report of the Committee on Mental Health, reporting that the Committee approved proposed legislation by psychologists to set up a board for certification of psychologists. He said that the Committee approved S.B. 7 which allowed certain patients to be removed from State Mental Hospitals to convalescent homes, also a proposed bill on commitment which would make examination by only one physician necessary. On motion of Dr. Dowell, the report was accepted.

S.B. 59 and S.B. 60 which deal with the director of the Division of Mental Health being either a physician or a person trained in hospital management and not necessarily a resident of Missouri were discussed; also H.B. 49 which designated that the head of the Division be a psychiatrist or physician. Dr. Thale said that the present bills and the Committee's opinion were not in conflict.

SPECIAL COMMITTEE

The special committee to study legislation in conference with representatives from the osteopathic group reported briefly and announced that another meeting would be held on January 27.

POLIOMYELITIS

Mr. Singleton reported on a meeting he and Dr. Daniel B. Landau, Hannibal, Chairman of the Committee on Infant and Child Care, had attended the previous day in Chicago. He said that the A.M.A. was disturbed that the coverage in immunization was not better and recommended several methods to states to remedy the situation. It was stated that Dr. Landau wished an early meeting of this Committee for study.

HEALTH SERVICE

"Guides for Medical Societies in Developing Plans for Tax-Supported Personal Health Services for the Needy," adopted by the House of Delegates of the A.M.A. in December 1956, were distributed to members of the Council.

W. F. Francka, M.D., *Chairman*

Supplemental Report of the Council

W. F. Francka, M.D., Hannibal: Mr. Speaker, Mem-

The Chairman of the Committee on Cancer reported to the Council.

bers of the House of Delegates: The Council has several things it would like to present.

Item 1

Your Council throughout the year has been closely in touch with the activity and progress of Missouri Medical Service, the Blue Shield plan directly sponsored by MSMA that serves most of Missouri. We have also been aware of the excellent progress of the Kansas City Blue Shield plan sponsored by the Jackson County Medical Society.

Details of the plans' enrollment progress, benefits and other information of interest are presented in the report of the Committee on Medical Economics. The Council would like, however, to direct the attention of the House to the great work that has been accomplished for the protection of the public by Blue Shield in Missouri in the space of little more than a decade. This is particularly appropriate in that our retiring MSMA president, Dr. Carl F. Vohs, has recently retired from the presidency of Missouri Medical Service, a post he had held since the founding of the plan.

To the leadership of Dr. Vohs—and to the many doctors and laymen and staff people who have worked long and faithfully for our Blue Shield—the Council believes this House owes today, at its first meeting following Dr. Vohs' retirement, a formal resolution of thanks and a formal expression of confidence.

The Council, therefore, proposes the following resolution:

Whereas, Missouri Medical Service was created at the express directive of this House of Delegates, in April 1944, and

Whereas, Its management—professional, lay and staff—has been continuously responsive to the directives of this House and to the Council of this Association in developing an effective program of voluntary prepayment health protection that has come to serve nearly 450,000 subscribers, and

Whereas, The plan is an outstanding example of the effectiveness with which our profession can act to serve the public interest as well as the interest of the profession itself, and

Whereas, Surgical Care of Kansas City has performed with similar excellence in its service area, now therefore, be it

Resolved, That this House of Delegates formally extend to the men and women responsible for the management of these plans—whether professional, lay or staff—the thanks of organized medicine in Missouri for what has been accomplished and express confidence in their capacity and judgment as well as in their devotion to the interest of the medical profession they serve; and, be it further

Resolved, That the language of this resolution be understood to apply in a very particular way to our beloved retiring President, Dr. Carl F. Vohs.

Gentlemen, I shall pause here to invite from the floor a motion that the rules be suspended to permit the House to vote upon this resolution at this time.

Upon motion, duly seconded, the House of Delegates voted unanimously to suspend the rules.

Upon motion, duly seconded, the resolution was adopted by the House of Delegates.

Item 2

Dr. Francka: The Council wishes to report to the House the receipt of the following letter from the president of Missouri Medical Service:

"As president of Missouri Medical Service, may I ask you to bring to the attention of the MSMA Council a matter which should be presented to the House of Delegates at the coming annual session of the Missouri State Medical Association.

"You will recall that MMS was asked by the Council—pursuant to a resolution adopted last year by the House of Delegates—to study the elements of a Blue Shield service program that might be offered to low and middle income groups of subscribers in the St. Louis Blue Shield area. Work on this project was promptly undertaken by the staff and the matter was discussed in an exploratory way by a representative advisory committee of physicians.

"It became apparent, well before the service program proposal could be completed for formal consideration of county societies, that there was strong objection to the service principle, as such, on the part of many members of the profession in our area. This objection was voiced with particular vigor by a number of St. Louis doctors, and both St. Louis City and County Medical Societies acted formally to condemn the idea of service.

"This development made it appear to Missouri Medical Service that it was not desirable to give further consideration to drafting a service program. Accordingly, the matter was dropped. Our advisory committee on a service program has been discharged.

"In view of the policy directive previously given to Missouri Medical Service by the Council on behalf of the House of Delegates, I feel this letter should be incorporated by the Council into its formal report to the House of Delegates at the coming annual session."

On the basis of this report from MMS, the Council recommends to the House the adoption of the following resolution:

Resolved, That the House of Delegates hereby withdraws its previous directive to Missouri Medical Service in the mat-

The President of the Woman's Auxiliary reported to the Council.

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Recipients of the 50 Year emblems were guests at the banquet.

ter of developing the elements of a Blue Shield program of service benefits for low and limited income groups for consideration by county medical societies.

Item 3

REPORT OF THE SPECIAL COMMITTEE TO CONSIDER WORKMEN'S COMPENSATION LAWS

A resolution, adopted by the House of Delegates, April, 1956, reads as follows:

WHEREAS, The American Medical Association House of Delegates, in December 1955 made the following recommendation: ". . . that the appropriate official medical organizations in each workmen's compensation jurisdiction examine and, where necessary seek adoption of statutory provisions to the end that all patients subject to workmen's compensation laws have the right to accept physicians' services provided by employers or to select another attending physician from a register of all other physicians in the community willing and qualified to perform the essential services, and

"WHEREAS, The House of Delegates of the Missouri State Medical Association has considered a resolution of the Council seeking such a change in the state laws of Missouri, and

"WHEREAS, The Missouri State Compensation Laws do not provide for examination and qualification of physicians relative to the care of compensation patients, and

"WHEREAS, Other deficiencies in the State Workmen's Compensation laws are known to exist, therefore be it

"Resolved, That the House of Delegates of the Missouri State Medical Association instruct the Council to establish a committee for the study of this problem, and to submit a report of their findings and recommendations to the House of Delegates at its next regular annual session."

The Council appointed a special committee, composed of the following: Drs. Roebber, Growdon, Sewell, Vohs, Francka, Ries and Scherman.

The Committee is aware of the fact that the Missouri Legislature is now in session and that new legislation may not be introduced after March 15, 1957. It is further aware of the fact that this report will not be considered until March 31, 1957. As a result, any recommendations of the Committee, if they should involve legislation, could not be implemented until the 1959 session of the legislature.

The Committee, therefore, recommends that the Council report to the House as follows:

(a) The Special Committee to study Workmen's Compensation laws should be continued;

(b) The duties of the Committee should be more closely defined (to study whether or not an employee should have free choice of physician in case of industrial accident or illness is one thing, but studying all aspects and deficiencies of the Compensation laws may reach into fields not germane to the practice of medicine.)

(c) Legal and other technical assistance may be needed.

Item 4

The Council proposes to the House the adoption of the following resolution relating to continuing cooperation with the Medicare program of the Federal Department of Defense in our state:

WHEREAS, A contract was entered into in December, 1956, by the Missouri State Medical Association and the Department of Defense for the purpose of providing care to dependents of active duty personnel of the uniformed services of the United States; and

WHEREAS, This contract will expire and come up for extension or renewal on June 30, 1957; and

WHEREAS, The Council believes it is in the best interests of the profession and of the nation that the medical care phases of the Medicare program continue under the guidance of the Missouri State Medical Association on the present basis; now therefore, be it

Resolved, That the House of Delegates direct and authorize the Council to carry forward whatever negotiations may be necessary in connection with extending the contract with the Department of Defense in the joint interest of Missouri doctors and the national welfare.

Item 5

In the addresses of Dr. Vohs and Dr. Sewell you have heard of the past year's developments in the matter of proposed legislation aimed at setting a single and a high standard of competence for all persons to whom Missouri licenses shall be granted in the future to practice medicine and surgery. The special committee of the Council has met twice with representatives of the osteopaths to discuss the problem. The following resolution on the subject is presented to the House of Delegates:

WHEREAS, It is apparent that the best interests of the public and the medical profession will be served by the setting of a single and a high standard of competence for persons who shall in future be licensed by the State of Missouri as physicians and surgeons, be it

Resolved, That the House of Delegates of the Missouri State Medical Association favors the creation of a single board of licensure for doctors of medicine and doctors of osteopathy—this board to be made up of physicians of both groups in numbers proportional to the present numbers of licensed members of the respective groups resident in the State of Missouri, be it further

Resolved, That the Officers, Council and staff of the Association work with representatives of the osteopaths with a view to drafting of such legislation and that the draft be submitted to this House for final action at its next regular session.

Item 6

RESOLUTION ON THE REPORT OF COMMITTEE ON MEDICAL ECONOMICS

WHEREAS, The Council at its meeting January 27, considered the report of the Committee on Medical Economics,

Delegates from St. Louis attended the Woman's Auxiliary dinner.

and action of the Council is found on page 64 of the booklet, "Reports of Officers and Committees"; and

Whereas, Further study indicates that the second paragraph of the approved reports needs further clarification; now therefore, be it

Resolved, That the second paragraph be amended by adding the following words at the end of the first sentence, "including payments to physicians as vendors of medical services," so that the entire report will read as follows: "Traditionally the medical profession has provided care for indigent patients without charge. The medical doctors of Missouri are ready, as always, to continue this tradition of service to patients in need without regard to payment.

"There is, however, an apparent trend toward provision of public funds for the health care of indigent people, including payments to physicians as vendors of medical services. This trend has been embodied in social security legislation providing federal funds, to be matched by the states, to be paid for indigent health service. State legislation will be called for to implement the federal law.

"It is the strong feeling of the Committee that the proposed state legislation, in view of its importance to the public welfare and the individual patients who may receive care, should include provision for the appointment of a medical advisory committee to consult with and advise the State Department of Welfare on the matters affecting all phases of medical care."; and, be it

Resolved, That this change be included in the Council report to the House of Delegates.

Item 7

ACTIONS OF THE COMMITTEE ON INFANT AND CHILD CARE

Following are actions of the Committee on Infant and Child Care, approved by the Council by mail vote and subsequently on March 17, for transmission to members:

After agreeing on the following facts:

1. That Salk polio vaccine is both safe and effective and is now recognized as taking its place as a part of the general immunization program in good preventive medical practice;
2. that over the past year further evidence has been accumulated that there is special need for people to the age of 40 receiving polio innoculation;
3. that the supplies of vaccine are now sufficient for the vaccination of anyone and that people over the age of 40 should avail themselves of the vaccine;
4. that there has been a lag in polio immunization;
5. that the Division of Health has given outstanding help and cooperation to physicians of Missouri in the program for polio immunization and has pledged its continuing cooperation.

And the Committee being guided by the following principles:

1. That as with other problems of immunization and medical care, a program of protection against polio can best be carried out under direction of present and well recognized medical facilities;
2. that the physician best carry out his responsibility to the patient through personal care in his office;
3. that physicians being aware of the need and efficiency of the Salk vaccine should take the leadership in urging their patients to obtain innoculation.

The Committee voted to recommend that the MSMA urge all county medical societies to take the leadership in developing local programs in accordance with local circumstances for a widespread campaign to encourage the public, particularly those under 40, to obtain polio vaccine immediately and, further, that county societies obtain the assistance and cooperation of all interested community groups and organizations in this campaign. The Committee also suggested that every physician's office become an immunization center and that MSMA cooperate with other sources in providing publicity for these campaigns on a state-wide basis and provide such other help to local societies as may be possible.

Scientific sessions were held in the Little Theater.

Item 8

RESOLUTION OF THE JENKINS-KEOGH BILLS

The Council recommends to the House the adoption of the following resolution:

Whereas, The present income tax law of the United States is unfair to self-employed persons, including a majority of practicing physicians, in that it does not give to them the measure of tax relief it accords to corporations and to employees in the important matter of deferring taxation of reasonable amounts of current income paid into retirement programs, and

Whereas, Bills have been introduced into the House of Representatives by Representatives Jenkins and Keogh to correct this manifest inequity, and

Whereas, The members of the Missouri State Medical Association and those who will enter the profession have a direct and important interest in tax relief to help them in setting aside funds for living expenses in retirement, now therefore, be it

Resolved, That this House of Delegates go on record as advocating the passage of such equitable legislation, and be it further

Resolved, That a copy of this resolution be sent to each Missouri member of the Senate and the House of Representatives, and be it further

Resolved, That the individual members of the Missouri State Medical Association be urged to bring to the attention of our members of Congress by letter and every possible personal contact the need for such legislation and its simple fairness to self-employed Americans.

Item 9

RESOLUTION ON CONSTITUTIONAL AMENDMENT NO. 1

Whereas, A proposal to amend the Constitution of the State of Missouri (Constitutional Amendment No. 1) is to be presented to the voters of the state on Tuesday, April 2; and

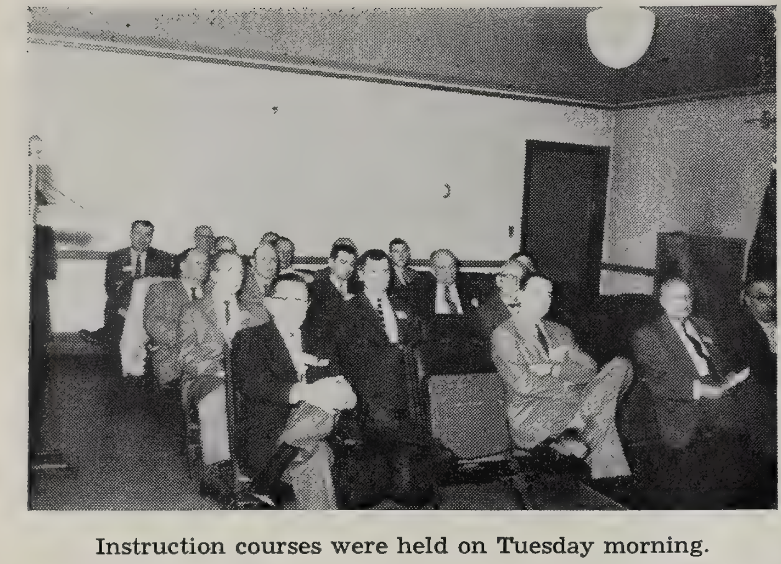
Whereas, This proposed amendment to the State constitution provides that the monthly compensation of members of the General Assembly be increased from $125 to $300, together with a realistic increase in allowable reimbursement for expenses incurred by legislators in traveling to and from Jefferson City; and

Whereas, The Missouri State Medical Association recognizes that the general welfare requires that members of the legislature should be compensated in a measure that relates in some realistic degree to the importance of their responsibility and their actual hours of work on legislative matters; and

Whereas, The doctors of Missouri believe that it is contrary to the public interest to hold down legislators' compensation to a level absurdly low; now therefore, be it

Resolved, That this Association urge all its members to vote in favor of Constitutional Amendment No. 1; and be it further

Resolved, That members of MSMA who will be away from their homes at the time of the balloting—because of the annual session of the Association that will take place at that time—be asked specifically to vote absentee ballots, which may be obtained throughout the state from the county clerk—and in St. Louis, St. Louis County and Jackson County from the Board of Election Commissioners.



Instruction courses were held on Tuesday morning.

Item 10

RESOLUTION ON THE DEATH OF DR. MCCOMAS

Whereas, Our colleague, Arthur R. McComas of Sturgeon, has died since the last meeting of this House of Delegates; and

Whereas, Every member of the present-day Missouri State Medical Association is in his debt for the long years of service he devoted to shaping the structure and the policy of the organization as chairman of the Council for nearly a full generation, as President in 1922, as delegate to the American Medical Association and, more recently, as a diligent and interested member of this House; now therefore, be it

Resolved, That this expression of esteem and gratitude for his diligent leadership and faithful service be spread on the minutes of this meeting; and be it further

Resolved, That a copy of this resolution be sent to the family of Dr. McComas in token of our respect and sympathy.

Item 11

RESOLUTION ON THE DEATH OF DR. GRAHAM

Whereas, The life and career of our late colleague, Evarts A. Graham, exemplified all that every physician and scientist should aim to be; and

Whereas, His achievements in research and in clinical surgery won the recognition of the world, bringing honor to the medical profession of this state; and

Whereas, His role in the affairs of medicine in Missouri was vigorous and constructive and dedicated alike to the welfare of the profession and the public as he conceived that welfare; and

Whereas, After many years of friendly and stimulating association with us, he was to have received at this annual meeting of the Association the gold pin emblematic of his 50 years of medical practice; now therefore, be it

Resolved, That this House of Delegates take formal notice of the death of this great physician and that the text of this resolution be spread on the minutes of our meeting; and be it further

Resolved, That a copy of the resolution, together with the 50-year emblem that was to have been awarded to Dr. Graham at this meeting, be forwarded to Mrs. Graham in token of our respect and sympathy.

Upon motion, duly seconded, the rules were suspended and on motion, duly seconded, the resolutions concerning the deaths of Dr. McComas and Dr. Graham were adopted by the House of Delegates.

The Speaker referred the report of the Council and the Supplemental Report to the Reference Committee on Reports of Officers with the exception of the resolutions on the Jenkins-Keogh bills and Constitutional Amendment No. 1 which were referred to the Reference Committee on Resolutions.

M. Pinson Neal, M.D., Columbia: Mr. Speaker and Members of the House of Delegates, irrespective of the resolution just introduced by the Council, the members of the Boone County Medical Society, a constituent part of the Missouri State Medical Association, wishes to request that the House of Delegates require a special committee that an adequate resolution be adopted on the death of an individual who was born in 1858, whose years of service in life were only a few years short of a hundred years of this institution, a man who served and labored as a statesman, who worked as a parliamentarian as few men ever worked, a man who worked for honor, not as an honor to himself, but with honor and devotion to the medical profession of Missouri, and to the United States of America, a man who was so great that those of us who knew him and claimed him as a friend always stood more erect in his presence. I refer to a resolution by and for the House of Delegates as such on the death of Dr. Arthur R. McComas.

Upon second, the motion was adopted by the House of Delegates.

Carl F. Vohs, M.D., St. Louis, President, announced the Committee on Nominations as follows:

Committee on Nominations

C. L. Clark, M.D., Trenton.
B. L. Murphy, M.D., Hannibal.
Leonard T. Furlow, M.D., St. Louis.
James F. Dowd, M.D., St. Louis.
W. Logan Allee, M.D., Eldon, Chairman.
John E. Lamy, M.D., Sedalia.
Joseph C. Williams, Jr., M.D., Kansas City.
Sidney W. Scorse, M.D., Joplin.
Rollin H. Smith, M.D., West Plains.
W. O. Finney, M.D., Chaffee.

Speaker: The floor is now open for new business.

Sidney W. Scorse, M.D., Joplin: Mr. Speaker, I have a resolution to submit.

Resolved, That the House of Delegates of the Missouri State Medical Association request the House of Delegates of the American Medical Association to withdraw their opposition to compulsory Social Security as applied to the medical profession and to urge Congress to extend the benefits of Social Security to self-employed physicians.

The Speaker referred this resolution to the Reference Committee on Resolutions.

Dean Sauer, M.D., St. Louis: I have a resolution to submit.

Whereas, Much ill will and several resignations have resulted in the St. Louis Medical Society because of the collection of local, state and A.M.A. dues "in one package," and

Whereas, Such collection of A.M.A. dues is done at a financial loss by the St. Louis Medical Society, therefore be it

Resolved, That the St. Louis Medical Society go on record as opposing this practice, and be it further

Resolved, That the St. Louis Medical Society respectfully requests the House of Delegates to instruct the Council to

Past Presidents were guests at the banquet.

rescind the action forcing this added burden upon our Society.

The Speaker referred this resolution to the Reference Committee on Resolutions.

PAUL F. MAX, M.D., ST. LOUIS: I respectfully submit the following resolution.

WHEREAS, The St. Louis Medical Society is losing members and experiencing difficulty in recruiting new members because of the high cost of combined local, state and national dues in the total sum of $120.00 per year, and

WHEREAS, The St. Louis Medical Society believes that it can decrease its local dues by $10.00 within the near future, and

WHEREAS, The Missouri State Medical Association spent only $19.97 per member in 1956 in providing adequate service to its membership, and

WHEREAS, Any State medical association could spend almost any amount if it is provided by dues collected, therefore be it

Resolved, That the Missouri State Medical Association dues be maintained presently at the sum of $25.00 per year with no further assessments, and be it further

Resolved, That the Budget Committee be instructed that it is the will of the Association to live within this income.

The Speaker referred this resolution to the Reference Committee on Amendments to the Constitution and By-laws.

JOSEPH C. WILLIAMS, M.D., KANSAS CITY: I would like to propose a resolution regarding the reelection of Dr. James R. McVay to the Board of Trustees of the American Medical Association.

WHEREAS, The first term of Dr. James R. McVay on the Board of Trustees of the American Medical Association will end June 6, 1957, and

WHEREAS, Dr. McVay has served the Missouri State Medical Association as its President in 1939 and served the Association as a Delegate in the House of Delegates of the American Medical Association from 1933 to 1952, and

WHEREAS, Dr. McVay has served as a member and chairman of the Council on Medical Service of the American Medical Association from 1943 to 1952, and

WHEREAS, Dr. McVay as a member of the Board of Trustees has served with distinction on many important committees of the Board, therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association wholeheartedly and earnestly support his nomination for reelection to the Board of Trustees of the American Medical Association and requests the Delegates from the Missouri State Medical Association in the House of Delegates of the American Medical Association to present his name and work for his reelection, and be it further

Resolved, That a copy of this resolution be sent to all delegates of the American Medical Association with a letter asking their support for Dr. McVay.

The Speaker referred this resolution to the Reference Committee on Resolutions.

FRANK S. MCDOWELL, M.D., ST. LOUIS: This resolution may not be necessary because of the action of the Council but in an open meeting of the St. Louis Medical Society in October, the St. Louis Medical Society delegates were requested to present such a resolution.

Delegates were seated according to Councilor District in the House.

A clinical pathologic conference was part of the scientific program.

WHEREAS, The St. Louis Medical Society and the St. Louis County Medical Society have voted overwhelmingly against any type of service plan or fixed fee plan for Missouri Medical Service, Inc., and

WHEREAS, 75 per cent of the subscribing members of Missouri Medical Service live in the Greater St. Louis area, and

WHEREAS, 80 per cent or more of the participating physicians' services rendered to such patients are rendered in the Greater St. Louis area, therefore be it

Resolved, That the delegates of the St. Louis Medical Society do hereby move that the Missouri State Medical Association recognize that any such service plan for Missouri Medical Service, Inc., could not succeed without the participation of the members of these societies, and that the Missouri State Medical Association hereby disapproves of any attempt to initiate such a service or fixed fee plan by Missouri Medical Service, Inc.

The Speaker referred this resolution to the Reference Committee on Reports of Officers.

MONDAY, APRIL 1, 1957

The House of Delegates convened at 4:00 p. m., in the Little Theater, Municipal Auditorium, Kansas City, with Joseph L. Fisher, M.D., Speaker, presiding.

J. W. Thompson, M.D., St. Louis, reported for the Credentials Committee.

John F. Pearl, M.D., St. Clair, reported for the Reference Committee on Amendments to the Constitution and By-laws.

REPORT OF THE REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

I have a short but highly controversial report.

The Reference Committee on Amendments to the Constitution and By-laws disapproved the report of the standing Committee on Constitution and By-laws as printed. The dues, therefore, will remain at $25.00 as provided by the By-laws. It was felt that the affairs of the Association for the ensuing fiscal year could be conducted, including provisions for expanded services, within the existing budgetary provisions, without utilization of funds held in reserve. Should need for additional funds arise, they can be provided by an assessment levied by the House of Delegates as provided for by the By-laws upon the recommendation of the Council.

The Reference Committee voted to disapprove the resolution introduced by Dr. Dean Sauer regarding the package collection of dues by the local county medical

Past Presidents and guest speakers attended the banquet.

societies with respect to Chapter VIII, Sec. 4 of the Constitution and By-laws which reads as follows: "The secretary of each component society shall cause to be collected and remitted to the treasurer of this Association the per capita levies."

The resolution introduced by Dr. Paul Max was disapproved in lieu of the recommended action of your reference committee in the first paragraph of this report.

Dr. Pearl moved the adoption of the report, which was seconded.

Stanley S. Peterson, M.D., Springfield: Mr. Speaker, I have a minority report.

MINORITY REPORT OF REFERENCE COMMITTEE ON AMENDMENTS TO CONSTITUTION AND BY-LAWS

In the Reference Committee hearing on the proposed dues increase it became apparent to two of the Committee that if this dues increase is not approved there will be an operating deficit of $14,000 in 1958 without any added expense for study of the vendor program or the promotion of the single licensure law.

After consideration of the age old advice to lay up a store in time of plenty for use in lean days and recognizing that an anticipated operating deficit at this time is poor business, we present a Minority Report for the Reference Committee on Constitution and By-laws.

The Woman's Auxiliary dinner was well attended.

Whereas, The House of Delegates in proper assembly in 1956 approved a recommendation of the Budget Committee that the dues be increased to $35.00 by amendment to the By-laws, and

Whereas, The Council of the Missouri State Medical Association has, in its wisdom, proposed and adopted an expanded program which necessitates much needed increased personnel, space and other expenses, and

Whereas, The Committee on Constitution and By-laws made up of Chairman, W. A. Bloom, a past president of the Missouri State Medical Association, and W. L. Allee, a past president of the Missouri State Medical Association as well as H. M. Parker, Kenneth V. Larsen and P. W. Jennings have studied the proposition diligently and have recommended its adoption, and

Whereas, Unless the dues are increased there will be a demand upon the reserve fund of at least $14,000, therefore, be it

Resolved, That the report of the Committee on Constitution and By-laws be adopted as published on pages 25 and 26 in the Reports of Officers, Committees and Council.

This was discussed by proponents of the majority report, Leonard T. Furlow, M.D., St. Louis; J. W. Thompson, M.D., St. Louis; Paul Max, M.D., St. Louis; and proponents of the minority report, O. B. Barger, M.D., Harrisonville; W. W. Tillman, M.D., Springfield; W. L. Allee, M.D., Eldon; John T. Crowe, M.D., Cape Girardeau; John Growdon, M.D., Kansas City.

On motion of Dr. Pearl, duly seconded, the latter portion of the report was adopted.

The instruction courses were well received.

On standing vote there were 58 votes for the minority report and 38 against, not a two-thirds necessary for passage. After further discussion and recount and stated withdrawal of opposition by delegates, on motion, duly seconded, the minority report dealing with dues was adopted unanimously, constituting a change in the By-laws designating the dues as $35.00.

W. W. Gist, M.D., Kansas City, reported for the Reference Committee on Resolutions.

REPORT OF THE REFERENCE COMMITTEE ON RESOLUTIONS

The Reference Committee on Resolutions, composed of W. W. Gist, J. C. Peden, Sr., Roy A. Walther, Jr., Philip V. Dreyer and William J. Shaw, Sr., met and considered the resolutions as presented.

Resolution recommended by the Council for adoption by the House reads as follows:

Whereas, The present income tax law of the United States is unfair to self-employed persons, including a majority of practicing physicians, in that it does not give to them the measure of tax relief it accords to corporations and to employees in the important matter of deferring taxation of reasonable amounts of current income paid into retirement programs, and

WHEREAS, Bills have been introduced into the House of Representatives by Representatives Jenkins and Keogh to correct this manifest inequity, and

WHEREAS, The members of the Missouri State Medical Association and those who will enter the profession have a direct and important interest in tax relief to help them in setting aside funds for living expenses in retirement, now therefore be it

Resolved, That this House of Delegates go on record as advocating the passage of such equitable legislation, and be it further

Resolved, That a copy of this resolution be sent to each Missouri member of the Senate and the House of Representatives, and be it further

Resolved, That the individual members of the Missouri State Medical Association be urged to bring to the attention of our members of Congress by letter and every possible personal contact the need for such legislation and its simple fairness to self-employed Americans.

Mr. Speaker, I move the adoption of this resolution.

Upon second, this resolution was adopted.

The Committee on Resolutions considered a resolution from the floor:

"That the House of Delegates of the Missouri State Medical Association request the House of Delegates of the American Medical Association to withdraw their opposition to compulsory Social Security as applied to the medical profession and to urge Congress to extend the benefits of Social Security to self-employed physicians."

The Committee listened to the proponents of this resolution and felt that it should be disapproved at the present time inasmuch as it conflicts with other pertinent legislation.

Physicians receiving 50 Year emblems posed together.

Mr. Speaker, I move that this resolution be disapproved.

Upon second, this resolution was disapproved.

Resolution before the House concerning Constitutional Amendment No. 1 which reads as follows:

WHEREAS, A proposal to amend the Constitution of the State of Missouri (Constitutional Amendment No. 1) is to be presented to the voters of the state on Tuesday, April 2, and

WHEREAS, This proposed amendment to the State constitution provides that the monthly compensation of members of the General Assembly be increased from $125 to $300, together with a realistic increase in allowable reimbursement for expenses incurred by legislators in traveling to and from Jefferson City; and

WHEREAS, The Missouri State Medical Association recognizes that the general welfare requires that members of the legislature should be compensated in a measure that relates in some realistic degree to the importance of their responsibility and their actual hours of work on legislative matters, and

WHEREAS, The doctors of Missouri believe that it is contrary to the public interest to hold down legislators' compensation to a level absurdly low, now therefore be it

Resolved, That this Association urge all its members to vote in favor of Constitutional Amendment No. 1, and be it further

Resolved, That members of MSMA who will be away from their homes at the time of the balloting—because of the annual session of the Association that will take place at that time—be asked specifically to vote absentee ballots, which may be obtained throughout the state from the county clerk—and in St. Louis, St. Louis County and Jackson County from the Board of Election Commissioners.

A guest speaker has an informal discussion.

Mr. Speaker, I recommend adoption of this resolution.

Upon second, this resolution was adopted.

Resolution regarding the re-election of Dr. James R. McVay to the Board of Trustees of the American Medical Association was presented to House and reads as follows:

WHEREAS, The first term of Dr. James McVay on the Board of Trustees of the American Medical Association will end June 6, 1957, and

WHEREAS, Dr. McVay has served the Missouri State Medical Association as its President in 1939 and served the Association as a Delegate in the House of Delegates of the American Medical Association from 1933 to 1952, and

WHEREAS, Dr. McVay has served as a member and chairman of the Council on Medical Service of the American Medical Association from 1943 to 1952, and

WHEREAS, Dr. McVay as a member of the Board of Trustees has served with distinction on many important committees of the Board, therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association wholeheartedly and earnestly support his nomination for re-election to the Board of Trustees of the American Medical Association and requests the Delegates from the Missouri State Medical Association in the House of Delegates of the American Medical Association to present his name and work for his re-election, and be it further

Resolved, That a copy of this resolution be sent to all delegates of the American Medical Association with a letter asking their support for Dr. McVay.

Mr. Speaker, I recommend that this resolution be adopted.

Reference committees considered work of the House.

An orchestra entertained at the banquet.

Upon second, this resolution was adopted.

The resolution as presented to the House by Dr. M. Pinson Neal concerning the late Dr. A. R. McComas was read and approved by this committee. In compliance with Dr. Neal's suggestion, the committee recommends that the speaker appoint a Necrology committee to prepare a suitable resloution of this House to supplement the resolution of the Council eulogizing the late Dr. McComas and Dr. Graham and other members of this Association.

Mr. Speaker, I move the adoption of this portion of the report.

Upon second, this portion was adopted.

On motion, duly seconded, the report as a whole was adopted.

H. M. Roebber, M.D., Bonne Terre, reported for the Reference Committee on Miscellaneous Affairs.

REPORT OF THE REFERENCE COMMITTEE ON MISCELLANEOUS AFFAIRS

The Reference Committee on Miscellaneous Affairs met in Room 4 at the Auditorium, Sunday, March 31, at 3:45 p. m., with all members present. The reports of the committees as published in the Reports of Officers and Committees were studied.

The report of the Committee on Defense was approved as read.

The report of the Committee on Mental Health was approved.

The report of the Committee on Maternal Welfare was recommended for adoption.

The report of the Committee on Health and Public Instructions was approved as read.

The report of the Committee on Conservation of Eyesight was approved.

The report of the Committee on Control of Venereal Disease was approved as read.

The report of the Committee on Diabetes was approved.

The report of the Committee on Anesthesiology was recommended for adoption.

The report of the Committee on Hospital and Professional Relations was approved as read.

The report of the Committee on Civil Defense was approved.

The report of the Committee on Alcoholism was unanimously approved.

The report of the Committee on Rural Medical Service was approved.

Mr. Speaker, I move that the report of the Reference Committee on Miscellaneous Affairs be adopted.

On second, the report was adopted.

James P. Murphy, M.D., St. Louis, reported for the Reference Committee on Medical Education and Public Welfare.

REPORT OF THE REFERENCE COMMITTEE ON MEDICAL EDUCATION AND PUBLIC WELFARE

The Reference Committee on Medical Education and Public Welfare met at 4:00 p. m., all members present, and several members of the Association who discussed with the Committee the matters referred by the House of Delegates.

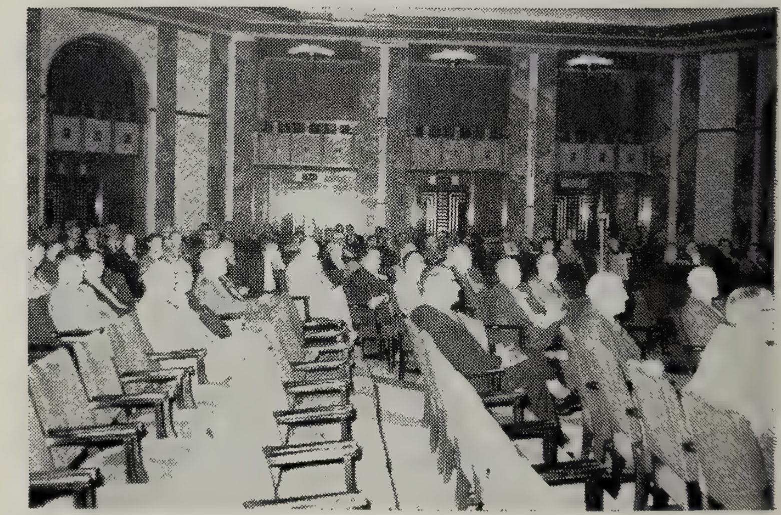
The report of the Standing Committee on Medical Education and Public Welfare was read by the Reference Committee, since it had not been published. It was discussed by the Committee and those attending and the report was approved, with special commendation on the preceptorship program. Several had had personal experience with such a program and it was felt that the Standing Committee on Medical Education and Public Welfare is doing an excellent service in its cooperation with the University of Missouri School of Medicine in the preceptor program. It is recommended that the House of Delegates approve this report.

The report of the Committee on Scientific and Postgraduate Work was discussed and the Reference Committee feels that the Committee is to be congratulated on its work during the year and on the program of the present Annual Session. The Reference Committee recommends that the House of Delegates approve the report.

The report of the Committee on Cancer was discussed and the A.M.A. House of Delegates Resolution 15, referred to in the report, was read. The Reference Committee recommends that the House of Delegates approve this report, including the A.M.A. resolution.

The report of the Committee on Tuberculosis needed little discussion and the Reference Committee approved it and recommends that the House of Delegates approve the report.

The report of the Committee on American Medical Educational Foundation was discussed at length, comparing the work in Missouri with that of other states and Missouri's standing as compared with other states in the amount and number of contributions. The report was approved by the Reference Committee and



Guest speakers furnished much of the scientific program.

it is recommended that the House of Delegates approve the report.

Upon motion of Dr. Murphy, duly seconded, the report was adopted.

Roy W. Pearse, M.D., Nevada, reported for the Reference Committee on Reports of Officers.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS

The Reference Committee on Reports of Officers met in Room 404, Municipal Auditorium, Kansas City, at 4:30 p. m., on Sunday, March 31, 1957, and again at 10:00 a. m., on Monday, April 1, 1957. All members of the Committee were present, along with officers and other interested members of the Missouri State Medical Association. Consideration was given the reports referred to this Committee as published in the booklet, "Reports of Officers and Committees" and in Missouri Medicine, the Supplemental Report of the Council and the resolutions referred to this committee.

The address of the President, Dr. Carl F. Vohs, and of the President-elect, Dr. Walter S. Sewell, were wholeheartedly approved. The committee commends Dr. Vohs for his work in the past year for MSMA and extends its best wishes to Dr. Sewell for success in the coming year.

The reports of the Secretary, Executive Secretary and Treasurer were approved as published.

The reports of the following Committees were approved as published: Committee on Publication, Committee on Infant and Child Care, Committee on Physical Medicine and Rehabilitation, Committee on Public Policy and Public Relations.

The report of the Council as published in the booklet, and the Supplemental Report of the Council received careful consideration and very active discussion. Sections 1, 10 and 11 of the Supplemental Report of the Council were approved on the floor of the House of Delegates. Sections 8 and 9 were referred to other committees and are not included in this committee report.

Item 2 of the Supplemental Report dealing with the matter of the Blue Shield service type program was considered in connection with the resolution of the St. Louis Medical Society on the same subject. After considerable discussion it was decided that the Resolution of the Council covered the situation adequately. The resolution of the St. Louis Medical Society was withdrawn by its sponsor.

A panel on "Pediatrics" was in the scientific program.

Past Presidents attended the annual banquet.

Item 2 of the Supplemental Report of the Council was approved as published.

Mr. Speaker, I move that this portion of the report be approved.

Upon second, this portion of the report was adopted.

Discussion of Item 3, of the Supplemental Report relative to the Report of the Special Committee to consider Workmen's Compensation laws, ended in the decision that Section B, paragraph 3, page 2 of the report should be deleted and rewritten to read as follows: "The duties of the Committee shall be limited to the medical aspects of the workmen's compensation laws." The remainder of this report of the Special Committee was approved.

Mr. Speaker, I move the adoption of this portion of the report as amended.

Upon second, this portion of the report was adopted.

Item 4 of the Supplemental Report dealing with the Medicare program was deemed not entirely satisfactory to the Committee and was amended by the addition of the following: "And be it further resolved, that the House of Delegates authorize the Council to explore the possibility of re-negotiating a new contract on a no fixed fee schedule basis."

Mr. Speaker, I move that this portion of the report be approved as amended.

Upon second, this portion of the report was adopted.

Item 5 pertaining to the single licensure problem was discussed and the resolution as presented was approved with the recommendation that this Association's delegates to the American Medical Association be instructed to request the House of Delegates of that organization to revive consideration, in the near future, of the Committee's findings, on the national level, regarding osteopathy (the Cline Report).

Mr. Speaker, I move that this portion of the report be approved.

Upon second, this portion of the report was adopted.

Item 6, dealing with a change in the wording of the Report of the Committee on Medical Economics; and Item 7, concerning the actions of the Committee on Infant and Child Care re: polio immunization, were approved as published.

That part of the Report of the Council dealing with the Report of the Committee on Fractures did not receive action at this time. Additional information is forthcoming on this Committee Report and, when it is received, a supplemental report of the Committee on Reports of Officers will be submitted.

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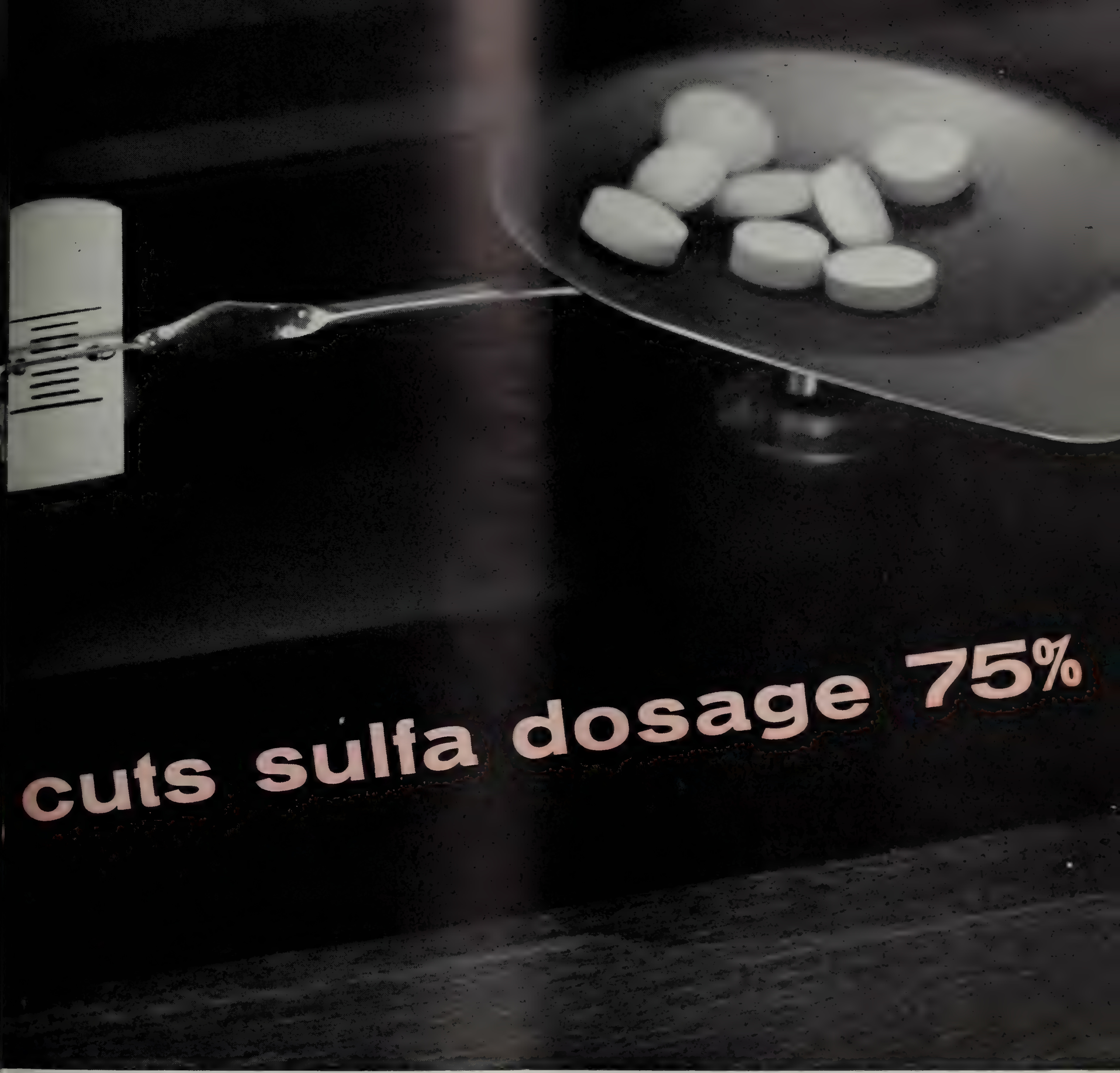

KYNEX Sulfamethoxypyridazine is a completely new, long-acting single sulfonamide with clinical advantages hitherto unequaled in sulfa therapy—

LOW DOSAGE[1] —only 2 tablets per day.

RAPID ABSORPTION[1]—therapeutic blood levels within the hour, blood concentration peaks within 2 hours.

PROLONGED ACTION[1]—10 mg. per cent blood levels that persist over 24 hours on a maintenance dose of 1 Gm.

BROAD-RANGE EFFECTIVENESS—particularly efficient in urinary tract infections due to sulfonamide-sensitive organisms, including E. coli, Aerobacter aerogenes, paracolon bacilli, streptococci, staphylococci, Gram-negative rods, diphtheroids and Gram-positive cocci.

GREATER SAFETY—high solubility, slow excretion and low dosage help avoid crystalluria. No increase in dosage is recommended; the usual precautions regarding sulfonamides should be observed.

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Each quarter-scored tablet contains: sulfamethoxypyridazine ...0.5 Gm. (7½ grains).

1. Boger, W. P.; Strickland, C. S. and Gylfe, J. M.: Antibiot. Med. & Clin. Ther. 3:378 (Nov.) 1956.

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The Woman's Auxiliary dinner was held on Sunday evening.

Mr. Speaker, I move the adoption of this portion of the report.

The motion was seconded.

Dean Sauer, M.D., St. Louis: With respect to the report of the Committee on Medical Economics, I would like to propose an amendment to that.

Dr. Sauer discussed Social Security and Public Law 880 and presented the following amendment to the report:

It is proposed to amend the report beginning with the second paragraph:

"Even though there is an obvious trend toward provisions of federal funds for the health care of indigent people including payments to physicians as vendors of medical services, it is imperative that the proposed State Legislation to implement Public Law 880 to provide matching funds should be defeated because it will establish a potentially dangerous framework for federal medicine with the consequent deterioration of medical care to the public which is inevitable in any bureaucratically controlled program," so that the entire report shall read as follows:

"Traditionally the medical profession has provided care for indigent patients without charge. The medical doctors of Missouri are ready, as always, to continue this tradition of service to patients in need without regard to payment.

"Even though there is an obvious trend toward provisions of federal funds for the health care of indigent people including payments to physicians as vendors of medical services, it is imperative that the proposed State Legislation to implement Public Law 880 to provide matching funds should be defeated because it will establish a potentially dangerous framework for federal medicine with the consequent deterioration of medical care to the public which is inevitable in any bureaucratically controlled program."

Reference committees heard expressions from members.

Upon motion by Dr. Sauer that the amendment to the report be adopted, duly seconded, the amendment was adopted.

Upon motion, duly seconded, the report as a whole and as amended was adopted.

W. F. Francka, M.D., Hannibal, reported for the Council.

REPORT OF THE COUNCIL

Whereas, Robert B. Denny, a founder member and former president of the St. Louis County Medical Society and for many years our active and beloved colleague in the affairs of the Missouri State Medical Association, has died since the last meeting of this House of Delegates, and

Whereas, His career exemplified all the qualities that have come to be recognized as traditional and best in the practice of the rural physician, and

Whereas, He long and faithfully served this Association as a member of its Council and President in 1942, now therefore be it

Resolved, That this memorial be recorded in the minutes of this meeting of the House of Delegates, and be it further

Resolved, That copies of it be forwarded to the family of Dr. Denny as a token of our respect and sympathy.

Whereas, Morris B. Simpson, a Past President of the Missouri State Medical Association, and of the Jackson County Medical Society, has died since the last Annual Session of this House of Delegates, and

Instruction courses were held on Tuesday morning.

Whereas, He faithfully served his colleagues in both these organizations and exemplified to a rare degree qualities of devotion, responsibility and leadership, now therefore be it

Resolved, That this memorial be recorded in the minutes of this meeting of the House of Delegates, and be it further

Resolved, That a copy be forwarded to his wife as a token of our esteem and sympathy.

At its meetings yesterday and today, the Council considered two bills now pending in the General Assembly, H.B. 480 and S.B. 253, the first relating to the removal of the requirement of citizenship for medical licensure, and the second providing for issuance of temporary licenses without regard to citizenship.

After exploring the problems involved with the State Board of Medical Examiners, the Council believes it may be possible to achieve the results sought by the proposed legislation—in particular, institutions—by means of action by the Board of Medical Examiners itself. If this were possible, it is believed the legislation would be unnecessary and the bills would be withdrawn.

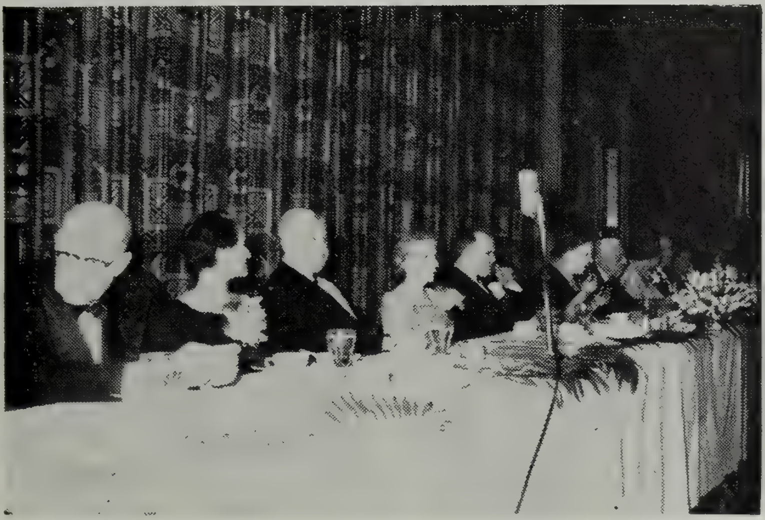
A formal meeting of the Board of Medical Examiners will be held tomorrow after which it will be possible to know whether the purposes of the proposed legislation can be achieved by the Board regulation. For this reason the Council asks the permission of the House to bring this matter up for final action at the Wednesday afternoon session. The position of the Council on the matter as it stands at present is that the Association should go on record as opposed to the pending bills.

The Speaker referred the resolutions to the Reference Committee on Resolutions.

The Speaker appointed the following Necrology Committee: M. Pinson Neal, M.D., Columbia, Chairman; Leonard T. Furlow, M.D., St. Louis; Philip L. Byars, M.D., Kansas City.

James C. Cope, M.D., Columbia: I wish to present a resolution.

Whereas, The physicians of Missouri are considered by their patients to be counselors in all matters of health, including health insurance, and
Whereas, There are many types of health insurance and prepaid medical care plans sold in the State of Missouri, and
Whereas, Many of these plans do not offer adequate coverage, and
Whereas, Each of these plans has a separate and different type of reporting form, and
Whereas, Many of these reports call for information pertinent to the insurance reported, therefore be it.
Resolved, That a continuing special committee be appointed to study the many types of health insurance plans sold in the state and make available to Missouri State Medical Association members a summary of the various plans with recommendations to their value, and be it further
Resolved, That this committee design a standard report form that could be used whenever a claim is to be made.


The Annual Banquet was held in the Grand Ball Room.

The Speaker referred this resolution to the Reference Committee on Reports of Officers.

There being no further business, the House of Delegates adjourned at 5:45 p. m.

WEDNESDAY, APRIL 3, 1957

The House of Delegates convened at 1:30 p. m., April 3, 1957, in the Little Theater, Municipal Auditorium, Kansas City, with the Speaker, Joseph L. Fisher, M.D., St. Joseph, presiding.

J. W. Thompson, M.D., St. Louis, reported for the Credentials Committee.

Mr. Tom R. O'Brien read the roll call which showed a quorum present.

E. Royse Bohrer, M.D., Jefferson City, read the minutes of the Sunday and Monday sessions of the House, which were, upon motion and second, adopted.

W. L. Allee, M.D., Eldon, reported for the Nominating Committee.

Reference committees met after the House of Delegates.

REPORT OF THE NOMINATING COMMITTEE

For Vice Presidents: M. Pinson Neal, M.D., Columbia; Joseph G. Webster, M.D., Kansas City, and Paul R. Whitener, M.D., Florissant.

For Delegates to the American Medical Association: F. L. Feierabend, M.D., Kansas City, alternate, Rolla B. Wray, M.D., Nevada; Joseph C. Peden, M.D., St. Louis, alternate, Dean Sauer, M.D., St. Louis.

For Speaker of the House of Delegates: Joseph L. Fisher, M.D., St. Joseph. Vice Speaker, Oscar P. Hampton, M.D., University City.

There being no nominations from the floor, on motion, duly seconded, these officers were declared elected.

The Secretary announced the following reports of election of Councilors: Second District, B. L. Murphy, M.D., Hannibal; Fourth District, Joseph C. Creech, M.D., Troy; Fifth District, Byron M. Stuart, M.D., Boonville; Sixth District, C. G. Stauffacher, M.D., Sedalia; Eighth District, W. W. Tillman, M.D., Springfield; Tenth District, Ben M. Bull, M.D., Ironton.

B. L. Murphy, M.D., Hannibal, nominated W. F. Francka, M.D., Hannibal, for President-Eelect.

Upon motion and vote the Secretary was instructed to cast the unanimous ballot of the House of Delegates for W. F. Francka, M.D., Hannibal, for President-Elect. The Secretary cast the unanimous ballot of the House of Delegates for Dr. Francka for President-Elect and the Speaker declared Dr. Francka so elected.

Dr. Francka: Gentlemen, I hereby wish to express my thanks for the signal honor you have chosen to

Some Greene County members were stopped by the photographer.

The nominee for President-Elect is greeted on his way to the platform.

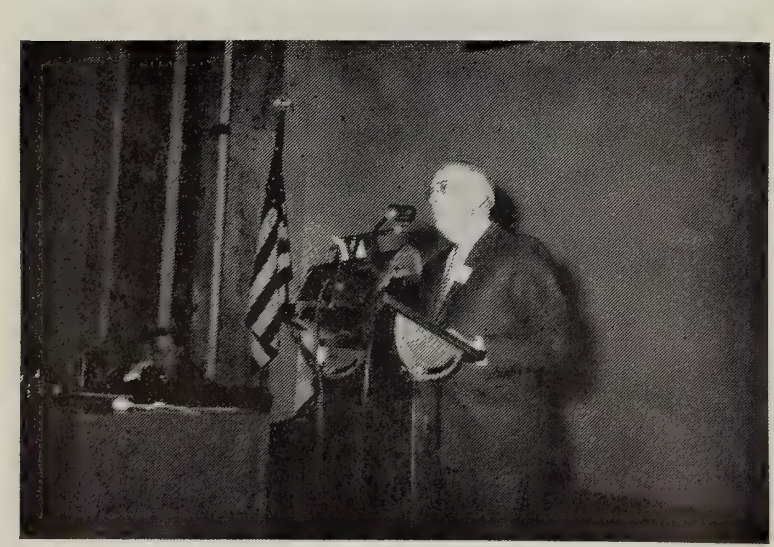
bestow upon me. I am sincerely grateful. In fact, I feel very humble for this greatest honor that you have given me and that the Missouri State Medical Association can pay to any of its members. I hereby wish to express my thanks to all my friends and to all those who have made it possible for me to stand before you today as your President-Elect. I would also wish publicly to express my thanks to my good wife, who has not only been an excellent chauffeur and a most pleasant companion, but has always encouraged me to do whatever I thought was my duty to organized medicine.

Gentlemen, I have seen about thirty men ascend this rostrum to make their acceptance remarks. All of them were able and dedicated men. I hope that in some small way I can measure up to at least the lesser of these. I also plead for unity, for cooperation and assistance during my tenure of office. Medicine today is confronted with many perplexing problems, problems of most importance being the piecemeal and continued socialization, and it will take the combined best efforts of all of us to steer a straight and useful course. I know that I can count on your cooperation and with your help I am sure that more progress can be made. I thank you and I will see you next year.

W. W. Gist, M.D., Kansas City, reported for the Reference Committee on Resolutions.

REPORT OF THE REFERENCE COMMITTEE ON RESOLUTIONS

The Reference Committee on Resolutions met on Monday afternoon, April 1, and considered the resolutions submitted to the House of Delegates on April 1. These resolutions concerned the late Dr. Robert B. Denny and Dr. Morris B. Simpson.



The President-Elect accepts the nomination.

It was the opinion of the committee that a proper memorial tribute be written by the Necrology Committee and that this tribute be incorporated into the official minutes of the House of Delegates, which minutes are to be published in July, 1957, and copy of these eulogies be sent to the nearest surviving relative.

Upon motion, duly seconded, this report was adopted.

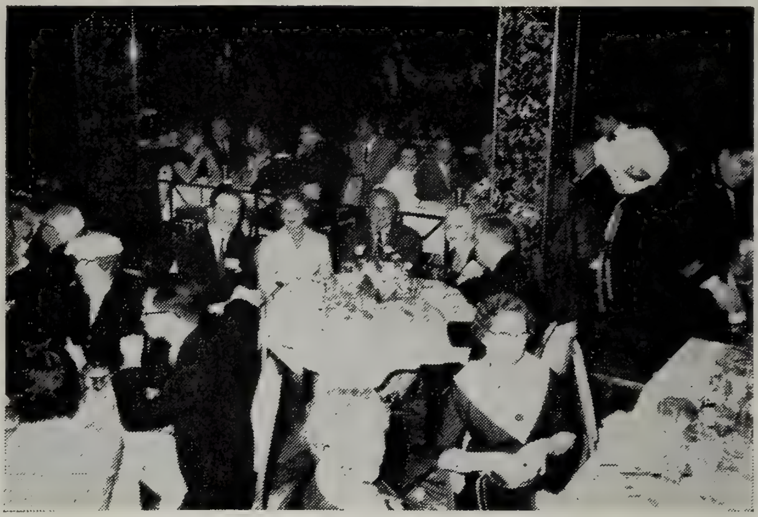
REPORT OF SPECIAL NECROLOGY COMMITTEE

Arthur Rocheford McComas, M.D.

1868-1956

A Memorial

The death of Arthur Rocheford McComas, M.D., on November 13, 1956, at the age of four score years and eight, ended an outstanding career and there passed from the membership of the Missouri State Medical Association one of its most able, gifted and versatile men, a stimulating colleague, an outstanding physician of great personal charm—who exemplified all that is good, that is noble and unselfish.



Entertainment at Woman's Auxiliary dinner was enjoyed.

Dr. McComas was one who activated others with his energy, enthusiasm and loyalty, and contributed guidance to organized medicine for sixty-six years that he devoted to the practice of his profession at Sturgeon, Missouri—and was one who vehemently decried deception and intrigue in any form. Because he was genuine, he was the source of encouragement and inspiration for the many whose lives he touched.

He, who had great faith, endeared himself to, and had stimulating influence upon many—by what he gave, by his sincerity, honesty, thoroughness and perfection and was an individual who stood so high that we who knew him well stood more erect when in his presence or in the shadow of the great record he made; a record, not of or for himself, but a record for Missouri and American medicine, public relations and good will. What a great statesman, parliamentarian and ambassador he was!

In organized medicine his role was an active one always—committee duties were accepted cheerfully, officership seriously, and such responsibilities were performed with rare tact, great efficiency and significant diplomacy. As a follower of the principles that have come down from the "Great Physician," he knew that ever behind the masque of the invalid there was

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ACHROMYCIN* V
TETRACYCLINE BUFFERED WITH PHOSPHATE LEDERLE
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NOT
A DROP
WASTED

a faster-acting oral form

Youngsters really go for the taste-true orange flavor of ACHROMYCIN V SYRUP. But this new syrup offers more than "lip-service" to your junior patients. It provides the new benefits of RAPID-ACTING, phosphate-buffered ACHROMYCIN V—

- accelerated absorption in the gastrointestinal tract
- earlier, higher peaks of concentration in body tissue and fluid
- quicker control of a wide variety of infections
- unsurpassed true broad-spectrum action
- minimal side effects
- well-tolerated by patients of all ages

ACHROMYCIN V SYRUP: aqueous, ready-to-use, freely miscible. 125 mg. tetracycline per 5 cc. teaspoonful phosphate-buffered.

DOSAGE: 6-7 mg. per lb. of body weight per day.

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Scientific exhibits were displayed in the Arena.

a fellow human being—an individual. He demonstrated a patient determination to preserve the heritage of our American way of providing medical care, our way of life and of keeping medicine free of those who would enter it irregularly. An advocate of our resolve to stay strong in principle and in fact, he loved his profession, was jealous of its honor and bold in its defense. He possessed that gentleness and compassion for the suffering without which no man need hope to be a great physician.

WHEREAS, A distinguished, nationally known leader, one who respected justice, practiced and believed in mercy and compassion, and left an enduring impress on Missouri medicine, medical practice and statesmanship has been lost and though his voice has been stilled, the influence of Arthur McComas will always remain—the seed he sowed shall continue to produce; therefore be it

Resolved, We as members of the House of Delegates—of the Missouri State Medical Association—in formal session on this date at Kansas City—wish to express deep regret and our sense of a true loss. Significantly, he is missed by colleagues, friends, and former patients—as a man of constant high ideals, many merits, broad interests, of sterling character—always conscious of his responsibility.

The Committee entrusted with the preparation of this resolution on behalf of the House of Delegates, recommends that this evidence of esteem and sympathy be entered in the minutes of this Annual Meeting and that a copy be presented to his surviving relatives.

Morris Bigelow Simpson, M.D.
1886-1956
A Memorial

Organized medicine, metropolitan Kansas City, and many grateful patients of long standing have lost a true friend and an untiring, conscientious, far-sighted leader.

Dr. Simpson was born at Buffalo, Kansas, and received his early education at Council Grove, Kansas. He attended Baker University at Baldwin, Kansas, and received the degree of Doctor of Medicine in 1913 from the University Medical College of Kansas City, Missouri. He then entered the practice of medicine at Jewell, Kansas, which was interrupted by World War I. He served as a captain in the British Medical Corps and was decorated with the French Croix de Guerre and the British Military Cross. After the war he returned to Kansas to practice. After postgraduate work at New York Eye and Ear Hospital and New York Polyclinic Hospital, Dr. Simpson established his practice in his chosen specialty in Kansas City, Missouri, in 1921 and became a member of Jackson County Medical Society. With that organization he served diligently as a member of these committees: Finance, Special Building, Senior Library, Medical-Legal, Advisory to Defense Blood Program, Advisory to Selective Service. He served as Secretary to the Society and as President of the Society in 1937. During his presidency of Jackson County Medical Society, the executive office was established and the committee appointed which developed Blue Cross Hospital Service and laid the early studies and foundation for Surgical Care, Inc. As one of the original incorporators, a member of the first corporate board, and a member of the original board of trustees of Blue Cross he served faithfully from 1938 to 1950; though from the time of his retirement to his passing he maintained his interest in Blue Cross affairs.

For many years he served as Jackson County delegate to the Missouri State Medical Association, participating in many state committees, particularly as chairman on Public Policy and Relations. In 1947 he assumed the presidency of the Missouri State Medical Association. In 1949, he served as president of Kansas City Southwest Clinical Society. He had served as president of the Kansas City Eye, Ear, Nose and Throat Society.

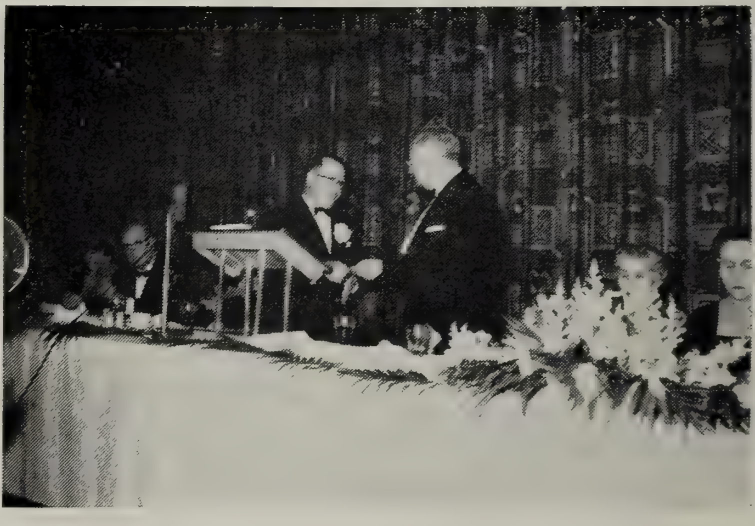
Dr. Simpson was a diplomate of the American Board of Otolaryngology, a member of the American Academy of Ophthalmology and Otolaryngology, the Pan-American Ophthalmology Society and the World Medical Association.

He was a member of the staff of Children's Mercy Hospital, Kansas City General Hospital No. 1, St. Mary's Hospital, Research Hospital, Kansas City Tuberculosis Hospital and was a member of various civic and community organizations.

His many accomplishments attest to a long, strenuous and sacrificing life endearing himself to his community and leaving with it an unforgettable heritage.

Evarts Ambrose Graham, M.D.
1883-1957
A Memorial

Dr. Evarts Graham, Bixby Professor of Surgery Emeritus, Washington University School of Medicine, died in Barnes Hospital on March 4, of inoperable carcinoma of the lung. Born in Chicago on March 19, 1883, his father, Dr. David Graham was a Professor of Surgery at Rush Medical College. After being graduated from Princeton University, Dr. Graham entered Rush Medical College and received his M.D. degree in 1907.



The outgoing President receives the Past President's Key.

He interned at Presbyterian Hospital in Chicago, was on the staff of the Otho S. A. Sprague Memorial Institute for Clinical Research, and was an instructor in surgery at Rush.

During World War I he entered the Army Medical Corps where his research and teaching did much to greatly reduce the mortality rate of empyema and in 1919 he became Professor of Surgery at the Washington University School of Medicine and Surgeon-in-Chief at Barnes Hospital. It was here that he achieved great fame as an organizer, teacher, surgeon and investigator.

With Warren Cole, in 1924, he developed a method of roentgenographic study by visualization of the gallbladder. In 1933 he removed an entire lung in one stage for bronchogenic carcinoma, and this grateful patient, a physician, is still living and active.

Honorary degrees were bestowed upon him by thirteen universities and he was selected many times for important lectures, both here and abroad. He organized and was the first chairman of the American Board of Surgery, and was a past president of many surgical societies. Prizes and medals were bestowed upon him by at least ten medical organizations and he was editor of several medical journals and texts. Many important chairs of surgery are held by his former residents, and his research and teaching has influenced all of medicine. Certain it is that he will always be regarded as one of the great men of Missouri medicine.

Robert B. Denny, M.D.
1870-1957
A Memorial

Dr. Robert B. Denny was one of the most active members of the St. Louis County Medical Society. In forty-four years of medical practice, he served loyally and unselfishly in civic affairs as well as medical and was beloved by his patients, colleagues and friends. He was elected president of the St. Louis County Medical Society three times and in 1941 served as President of the Missouri State Medical Association.

Dr. Denny was graduated from Southeast Missouri Teachers College at Cape Girardeau in 1893. He taught in St. Louis County until 1899 when he was elected superintendent of county schools, serving two terms.

He received his medical degree from Barnes Medical College in 1903 and began his practice in Eureka, where he remained for eight years. He then moved his practice to Creve Coeur. In 1903 Dr. Denny was elected to the Missouri Legislature as a representative from St. Louis County. He served as county excise commissioner in 1915 and was elected coroner of the County for a four year term in 1916.

The clinical pathologic conference caused discussion.

The Past President's banquet broke up slowly.

After practicing in Creve Coeur for thirty-five years, Dr. Denny retired in 1946, but continued his interest in the Medical Society until his death at the age of 86.

The St. Louis County Medical Society expressed itself in the following resolution:

Whereas, The Great Physician has seen fit to call to eternal rest Doctor Robert B. Denny,

Whereas, The St. Louis County Medical Society recognizes the important place he played in the activities of its progress,

Whereas, His presence has been an inspiration to all the members of the Society, therefore be it

Resolved, That the family has lost a kind, loving husband, father and grandfather, and be it further

Resolved, That organized medicine and the St. Louis County Medical Society has lost an honored, faithful and active member and wise councilor, and be it further

Resolved, That the community as a whole has lost a good and respected citizen, be it further

Resolved, That three copies of these resolutions be made, one to be sent to the bereaved wife, one to be spread on the minutes of the Society and the third to be published in the official Bulletin of the Society.

Roy W. Pearse, Jr., M.D., Nevada, reported for the Reference Committee on Reports of Officers.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS

The Reference Committee on Reports of Officers met on Monday afternoon, April 1, and Wednesday morning, April 3, to consider several matters brought up at the House of Delegates and referred to this committee.

The section of the report of the Council regarding H.B. 480 and S.B. 253 was considered, along with the text of Regulation (e) 4 approved by the Board of Medical Examiners, which is quoted:

"Regulation (e) 4: Any applicant who declares his intention to become a naturalized citizen and who registers with the Board his intention to take the examination for license may, pending the period until he will be eligible to take such examination for license be granted a permit to continue his residence and/or clinical training in any state-supported mental or tuberculosis hospital. The qualifications of each such applicant shall be determined by the superintendent of the hospital in which he is to be employed and submitted to the Board, and the applicant may be interviewed by the Board. Such permit shall be issued for one year and may be renewed annually by motion of the Board upon recommendation of such superin-

The oath of office was repeated after the Speaker.

tendent. Application to transfer from one such hospital to another may be made to and determined by the Board."

This regulation will make S.B. 253 unnecessary. The position of the Council in recommending the House go on record as opposing H.B. 480 and S.B. 253 was approved.

Mr. Speaker, I move the approval of this portion of the report.

Upon second, this portion of the report was adopted.

Dr. Pearse: The resolution submitted by Dr. Cope of Columbia was considered. On advice of counsel, the committee decided to delete those portions of the resolution which authorized a continuing committee to evaluate insurance plans.

It is the opinion of the committee that the following addition to the resolution should be made:

"And be it further Resolved, That this committee shall work in conjunction with similar committees of the American Medical Association and the Missouri Academy of General Practice."

The resolution, as amended, would read as follows:

Whereas, The physicians of Missouri are considered by their patients to be counselors in all matters of health, including health insurance, and

Whereas, Many of these plans do not offer adequate coverage, and

Whereas, Each of these plans has a separate and different type of reporting form, and

Whereas, Many of these reports call for information not pertinent to the instant reported, be it therefore

Resolved, That a committee be appointed to study the many types of health insurance plans sold in the state and make available to Missouri State Medical Association members a summary of the plans, and be it further

Resolved, That this committee design a standard report form that could be used whenever a claim is to be made, and be it further

Resolved, That this committee shall work in conjunction with similar committees of the American Medical Association and the Missouri Academy of General Practice.

Mr. Speaker, I move the adoption of this portion of the report.

Upon second, this portion of the report was adopted.

Dr. Pearse: Regarding the report of the Committee on Fractures on the chiropody bill, H.B. 263: This report has been disapproved by the Council and this reference committee approves the action of the Council in this matter. It is the understanding of this committee that H.B. 263 will be withdrawn by its sponsors.

Mr. Speaker, I move the adoption of this portion of the report.

Upon second, this portion of the report was adopted.

Upon motion, duly seconded, the report as a whole was adopted.

J. W. Thompson, M.D., St. Louis, referred to the resolution of the Council praising Dr. Vohs and spoke in further praise of Dr. Vohs.

On motion of Leonard T. Furlow, M.D., St. Louis, the rules were suspended for the submission by Dr. Furlow of a resolution approving the formation of the Missouri Diabetes Association, Inc., as follows:

Whereas, The American Diabetes Association has encouraged the establishment of state affiliated associations, and

Whereas, The American Diabetes Association has as its purpose the fostering of professional, patient and public education as well as a program of detection and of research concerning diabetes, and

Whereas, A group of interested members of the Missouri State Medical Association including members of the Committee on Diabetes of the Association, at a meeting on April 1, 1957, voted to establish such an association to be known as the Missouri Diabetes Association, Inc., with duly elected officers, therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association hereby endorses the Missouri Diabetes Association, Inc.

Upon motion, duly seconded, the resolution was adopted.

Walter S. Sewell, M.D., Springfield, read the appointments to committees to fill expired terms and chairmenships, which were approved by the House of Delegates, as follow:

COMMITTEE APPOINTMENTS, 1957

Scientific and Postgraduate Work: Eugene M. Bricker, St. Louis, Chairman; John I. Matthews, Jefferson City; Hector W. Benoit, Kansas City. Associate Members: Robert Smith, Marceline; W. Paul Maddux, Springfield; J. H. Keim, Cape Girardeau; James C. Janney, Jr., Clayton; C. E. Martin, St. Louis; Wyeth Hamlin, Palmyra.

Defense: C. E. Hyndman, St. Louis, Chairman.

Medical Education and Hospitals: Kenneth Glover, Mount Vernon, Chairman; Ralph R. Coffey, Kansas City.

Cancer: Marvin L. Napper, Springfield, Chairman; Frederick J. McCoy, Kansas City; Joseph L. Fisher, St. Joseph. Associate Members: John E. Lamy, Sedalia; George O. Miles, Kansas City; C. W. Meinershagen, Jefferson City; Byron E. Watts, Jefferson City; Charles E. Lockhart, Springfield; John J. Modlin, Columbia; A. N. Arneson, St. Louis.

Public Policy and Public Relations: Jerome I. Simon, St. Louis, Chairman; W. D. Chute, Moberly; Russell J. Crider, St. Charles; Rolla B. Wray, Nevada; Harry C. Lapp, Kansas City; O. B. Crawford, Springfield; H. W. Carrington, Lebanon; J. J. Bredall, Perryville; John

New officers and A.M.A. delegates pause for picture.

R. Dixon, Brookfield; R. R. Lyle, Versailles; W. S. Sewell, Springfield; W. F. Francka, Hannibal.

Medical Economics: A. P. Rowlette, Moberly, Chairman; R. E. Breuer, Newburg; A. B. Smith, Kansas City. Associate Members: Robert D. Duncan, Springfield; John T. Crowe, Cape Girardeau; G. W. Winn, Boonville; E. D. Imes, Maryville.

Mental Health: Henry V. Guhleman, Jefferson City, Chairman; Thomas Thale, St. Louis; W. J. Cremer, Fulton; John J. O'Hern, Kansas City; James N. Haddock, St. Louis; D. R. Edwards, Sedalia; Alex L. Brown, Springfield; Arnold S. Block, St. Louis; John DeMott, Kansas City; John Platz, Carrollton.

Maternal Welfare: Joseph L. Johnston, Springfield, Chairman. Associate Members: P. V. Siegel, Smithton; James E. Keeler, Kansas City; Joseph M. Krebs, St. Louis; Irwin T. Craig, Joplin; Francis R. Burns, Hannibal; F. C. Long, Savannah.

Infant and Child Care: Daniel B. Landau, Hannibal, Chairman; H. E. Wachter, St. Joseph; R. J. LaDriere, St. Louis; Guy N. Magness, University City; John S. Sennot, Jefferson City; J. C. Moody, Harrisonville; E. J. Schwartz, Springfield; Jack N. Wiles, West Plains; James A. Kinder, Cape Girardeau; Clark W. Seely, Kansas City.

Health and Public Instruction: A. W. McAlester, III, Kansas City, Chairman; John R. McDaniel, St. Joseph; E. A. Belden, Jefferson City.

Constitution and By-laws: W. A. Bloom, Fayette, Chairman.

Fractures: Paul W. Meyer, Kansas City, Chairman; Thomas G. Otto, Cape Girardeau; O. P. Hampton, Jr., Clayton. Associate Members: S. L. Gernstetter, Poplar Bluff; B. L. Murphy, Hannibal; R. E. Funsch, University City; Otis E. James, Kansas City; Glenn L. McElroy, Columbia.

Conservation of Eyesight: T. E. Sanders, St. Louis, Chairman; Paul G. Wolff, Cape Girardeau. Associate Members: Dick H. Underwood, Kansas City; Michael F. Pernoud, St. Louis; D. E. Eggleston, Macon; W. L. Post, Joplin.

Control of Venereal Disease: Edwin M. Powell, Springfield, Chairman; Robert Bristow, St. Joseph.

Industrial Health: H. M. Roebber, Bonne Terre, Chairman; Douglas A. Ries, Richmond Heights.

Diabetes: Henry E. Oppenheimer, St. Louis, Chairman; Charles M. Lamke, Columbia. Associate Members: William H. Olmsted, St. Louis; Robert E. Koch, Clayton; Harry M. Gilkey, Kansas City.

Anesthesiology: Merritt H. Kimball, Kansas City, Chairman; W. W. Tillman, Springfield; Carl K. Ness, St. Joseph.

Hospital and Professional Relations: Hollis Allen, St. Louis, Chairman; Stanley S. Peterson, Springfield; Carl F. Vohs, St. Louis. Associate Member: Walter S. Sewell, Springfield.

Laboratory Medicine: Joseph E. Flynn, Columbia, Chairman; Fred Coller, Springfield; Victor B. Buhler, Kansas City.

Physical Medicine and Rehabilitation: D. Elliott O'Reilly, St. Louis, Chairman; Lloyd Simpson, Columbia.

Civil Defense: William C. Allen, Glasgow, Chairman; H. D. Steinbeck, Union; Carroll P. Hungate, Kansas City; A. S. Bristow, Princeton; John Forgrave, St. Joseph; J. M. Canella, Hannibal; Curtis H. Lohr, Clayton; Carl D. Siegel, Sedalia; Don J. Silsby, Springfield; Samuel A. Grantham, Joplin; George E. Thoma, St. Louis; George L. Watkins, Farmington.

The speaker installed officers.

Tuberculosis: Paul Murphy, St. Louis, Chairman; Lawrence E. Wood, Kansas City; J. L. Mudd, St. Louis; C. A. Brasher, Mount Vernon; Walter C. Gray, St. Louis; F. E. MacInnis, Kansas City; H. L. Greene, Hannibal; David N. Kerr, St. Louis.

Study of Cardiac Disease: V. Bryce Ballard, Kansas City, Chairman; E. Lee Shrader, St. Louis; Earl L. Loyd, Jefferson City; W. I. Park, Springfield; E. J. McIntire, Carthage; A. M. Estes, Cape Girardeau; William A. Sodeman, Columbia; G. R. Hudson, Kirksville; Robert Paine, St. Louis; Caryle A. Potter, St. Joseph; E. E. Glenn, Springfield.

Alcoholism: Ralph E. Duncan, Kansas City; S. D. Smith, Columbia; Kenneth C. Coffelt, Springfield; Joseph B. Kendis, St. Louis; George W. Forman, St. Joseph.

Rural Medical Service: A. E. Spelman, Smithville, Chairman; W. J. Shaw, Fayette; B. J. Bass, Salem; John F. Pearl, St. Clair; Charles H. Lewellen, Louisiana; C. A. McBurney, Slater; Doyle McCraw, Bolivar; Jack Mullen, Bonne Terre; A. J. C. McCallum, Aurora.

American Medical Education Foundation: James P. Murphy, St. Louis, Chairman; Hugh E. Stephenson, Columbia; Donald F. Gose, Springfield; T. R. Jones, Kansas City; H. E. Petersen, St. Joseph.

Leonard T. Furlow, M.D., St. Louis, and Roy A. Walther, M.D., St. Louis County, invited the Association to hold the next Annual Session in St. Louis.

Upon motion, duly seconded, this invitation was accepted.

The Jackson County Medical Society members were thanked for their hospitality during the session.

Upon motion, duly seconded, the House of Delegates adjourned at 2:35 p. m.

THE COUNCIL

The Council met in the Little Theater, Municipal Auditorium, Kansas City, April 3, 1957, immediately following adjournment of the House of Delegates.

W. S. Sewell, M.D., President, opened the meeting and, after election of officers, R. O. Muether, M.D., St. Louis, Chairman, presided.

The following officers were elected: R. O. Muether, M.D., St. Louis, Chairman; J. H. Summers, M.D., Lebanon, Vice Chairman; E. Royse Bohrer, M.D., Jefferson City, Secretary; Jerome I. Simon, M.D., St. Louis, Treasurer.

New members of the Council were introduced: B. L. Murphy, M.D., Hannibal, Second District; W. W. Tillman, M.D., Springfield, Eighth District.

Dr. Sewell invited the Council to hold its next meeting in Springfield, Dr. Tillman joining in the invitation. The invitation was accepted and the dates of June 15 and 16 were agreed upon.

The report of the Committee on Fractures, dealing with a liberalization of the practice rights of chiropody, and which the Council did not approve was discussed briefly and it was reported that members of the Committee met with a group of chiropodists to explain the position of the Council and the chiropodists agreed to withdraw the legislation pending in the State Legislature on this subject. Dr. Francka said that a committee of the Missouri Chiropody Association had asked to appear at a later meeting of the Council and that he had granted the request.

The action of the House of Delegates in regard to P.L. 880 was reviewed. It was voted, on motion of Dr. Perry, that a statement of all facts regarding this problem be drawn up and sent to the Council, and probably to the full membership.

It was stated that some members of the St. Louis delegation had asked for consultation after the Council meeting to discuss the action on P.L. 880 and Drs. Perry, Tillman and Stauffacher and Mr. Skinner and Mr. O'Brien were asked to meet with these delegates.

R. O. Muether, M.D., Chairman.

REGISTRATION AT THE NINETY-NINTH ANNUAL SESSION

First Councilor District—57

Bauman, Henry C., Maryville
Bristow, Arthur S., Princeton
Bristow, Robert B., St. Joseph
Broyles, Watkins A., Bethany
Calvert, Lewis C., Weston
Carter, Howard, Hamilton
Chastain, M. W., North Kansas City
Clark, C. L., Trenton
Conrad, Joseph A., Chillicothe
Daley, Frank R., Hamilton
Dixon, John R., Brookfield
Dowell, Donald M., Chillicothe
Durham, Silas L., Dearborn
Fisher, Joseph L., St. Joseph
Forgrave, Paul, St. Joseph
Gary, George, Marceline
Goodson, William H., Liberty
Grant, Murray, Liberty
Grimes, Manning E., St. Joseph
Hendren, Glenn W., Liberty
Herman, Allen I., St. Joseph
Hobbs, Earl B., Smithville
Hodge, Robert H., North Kansas City
Howden, T. L., St. Joseph
Imes, Elvin D., Maryville
Jackson, William R., Maryville
Johnson, G. D., Maysville
Kirk, C. W., Hopkins
Knepper, Paul A., St. Joseph
Lau, Gustav A., St. Joseph
McCracken, S. R., Excelsior Springs
McDaniel, John R., St. Joseph
Mabrey, John P., Plattsburg
Martin, J. N., St. Joseph
Matteson, Frank B., Grant City
Muench, A. H., St. Joseph
Ness, Carl K., St. Joseph
Niedermeyer, E. L., Tarkio
Nixon, Edward E., Gallatin
Ochs, Randal N., Fairfax
Petersen, H. E., St. Joseph
Platz, John H., Carrollton
Potter, Thompson E., St. Joseph
Riddell, Richard V., St. Joseph
Robinson, John A., Edgerton
Rosenthal, Irwin I., St. Joseph
Rost, William B., St. Joseph
Shaw, William J., Fayette
Smith, Clifton, St. Joseph
Smith, Robert W., Marceline
Stacy, Winton T., St. Joseph
Stokes, J. B., Excelsior Springs
Wadlow, Ernest E., St. Joseph
Waterman, F. M., Liberty
Willumsen, Henry C., St. Joseph
Wilson, Fred K., Winston
Zahrt, Frank H., Princeton

Second Councilor District—16

Campbell, James E., Macon
Cohrs, Clarence, Moberly
Dreyer, P. V., Huntsville
Fleming, Thomas S., Moberly
Francka, W. F., Hannibal
Freeman, Spencer L., Kirksville
Hamlin, Wyeth, Palmyra
Hawkins, G. W., Salisbury
Kibbe, John H., Monroe City
Landau, Daniel B., Hannibal
Lewellen, Charles H., Louisiana
Montgomery, John S., Milan
Murphy, Bernard L., Hannibal
Roller, M. J., Hannibal
Rowlette, A. P., Moberly
Smith, W. J., Hannibal

Third Councilor District—48

Allen, Henry C., Clayton
Bartlett, Robert W., St. Louis
Bassett, R. B., St. Louis
Berry, John W., St. Louis
Blalock, William N., St. Louis
Burst, Donald O., St. Louis
Danis, Peter G., St. Louis
Dorsett, E. Lee, St. Louis
Earp, Ralph K, St. Louis
Falk, O. P. J., St. Louis
Fries. Armand D., St. Louis
Furlow, Leonard T., St. Louis
Glaser, Martin J., St. Louis
Gunn, Walter T., St. Louis
Hawkins, George L., Jr., St. Louis
Katz, Samuel D., St. Louis
Kelley, Robert W., St. Louis
Kerr, David N., Clayton
Kienzle, E. C., St. Louis
Knight, William A., Jr., St. Louis
Kohler, Louis H., St. Louis
Koon, Bernard T., St. Louis
Lawrence, George H., St. Louis
Lohr, Curtis H., Clayton
Lottes, J. Otto, St. Louis
McDowell, Frank, St. Louis
Maizus, S. H., St. Louis
Max, Paul F., St. Louis
Morris, Mary E., St. Louis
Mueller, Robert, St. Louis
Muether, R. O., St. Louis
Murphy, James P., St. Louis
Norton, William H., St. Louis
Olmsted, William H., St. Louis
Oppenheimer, Henry E., Clayton
Peden, Joseph C., St. Louis
Repetto, Albert, St. Louis
Ringo, Henry J., St. Louis
Ryan, Robert E., St. Louis
Sauer, Dean, St. Louis
Scherman, Victor E., St. Louis
Sherwin, Charles S., St. Louis
Thoma, George E., St. Louis
Thompson, J. Wm., St. Louis
Vohs, Carl F., St. Louis
Waitt, Paul, St. Louis
Walters, Harold E., St. Louis
Zeinert, Oliver B., University City

Fourth Councilor District—29

Bailey, W. H., St. Louis
Cowdry, E. V., Jr., Clayton
Creech, Joseph C., Troy
Cutler, Harold M., St. Louis
Damron, Edward, Elsberry
Dowd, James F., St. Louis
Eberle, John P., Glendale
Fallet, Charles E., DeSoto
Hampton, Oscar P., Jr., St. Louis
Howe, Louis F., Brentwood
Kendis, Joseph B., St. Louis
Magness, Guy N., University City
Mays, Frank A., Washington
Meador, James R., St. Louis
Muench, L. O., Washington
Pearl, John F., St. Clair
Peck, Dorothea, New Haven
Schattyn, Martyn, St. Louis
Schmidt, Herbert H., Marthasville
Schneider, Vincent, St. Charles
Shepherd, C. T., St. Louis
Steiner, Jerry, St. Louis
Sterling, John A., Maplewood
Trueblood, A. C., Jr., St. Louis
Vinyard, Paul, St. Louis
Walther, Roy A., Jr., St. Louis
Wepprich, Michael S., Washington
Workman, George M., Hermann
Yoskit, Harry, Festus

Fifth Councilor District—42

Allee, W. L., Eldon
Amos, James R., Jefferson City
Bloom, W. A., Fayette
Bohrer, E. R., Jefferson City
Burney, W. S., Miller
Burns, Thomas W., Columbia
Clark, Kendall A., Jefferson City
Cooper, Maurice E., Columbia
Cope, James C., Columbia
Cremer, William J., Fulton
Dwyer, Thomas L., Mexico
Gardner, J. W., Glasgow
Garner, Lynn, Jefferson City
Garrett, Glen H., Columbia
Gunn, A. J., Versailles
Gunn, Jack, Versailles
Gurnee, Landon H., Jefferson City
Hall, John R., Ashland
Hepner, Ray, Columbia
Hobbs, George H., Fulton
Jackson, Robert L., Columbia
Kallenbach, Glen P., Mexico
Killough, John H., Columbia
Lamke, Charles M., Columbia
Loyd, Herlan O., Jefferson City
Lyle, Ray, Versailles
McChesney, Evans A., Columbia
McHaney, John W., Jefferson City
Neal, M. Pinson, Columbia
Overholser, M. D., Columbia
Pullen, Roscoe L., Columbia
Sandy, Charles, Prairie Village, Kan.
See, William B., Columbia
Shull, G. Donald, Jefferson City
Stephan, August P., Jefferson City
Stephenson, Hugh E., Jr., Columbia
Stewart, William J., Columbia
Stuart, B. M., Boonville
Walters, John H., Columbia
Washburn, J. L., Versailles
Winn, George W., Boonville
Wood, George F., Fulton

Sixth Councilor District—35

Aiken, G. A., Marshall
Allen, Claude J., Rich Hill
Barger, O. B., Harrisonville
Bradshaw, W. D., Clinton

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unexcelled in
therapeutic potency

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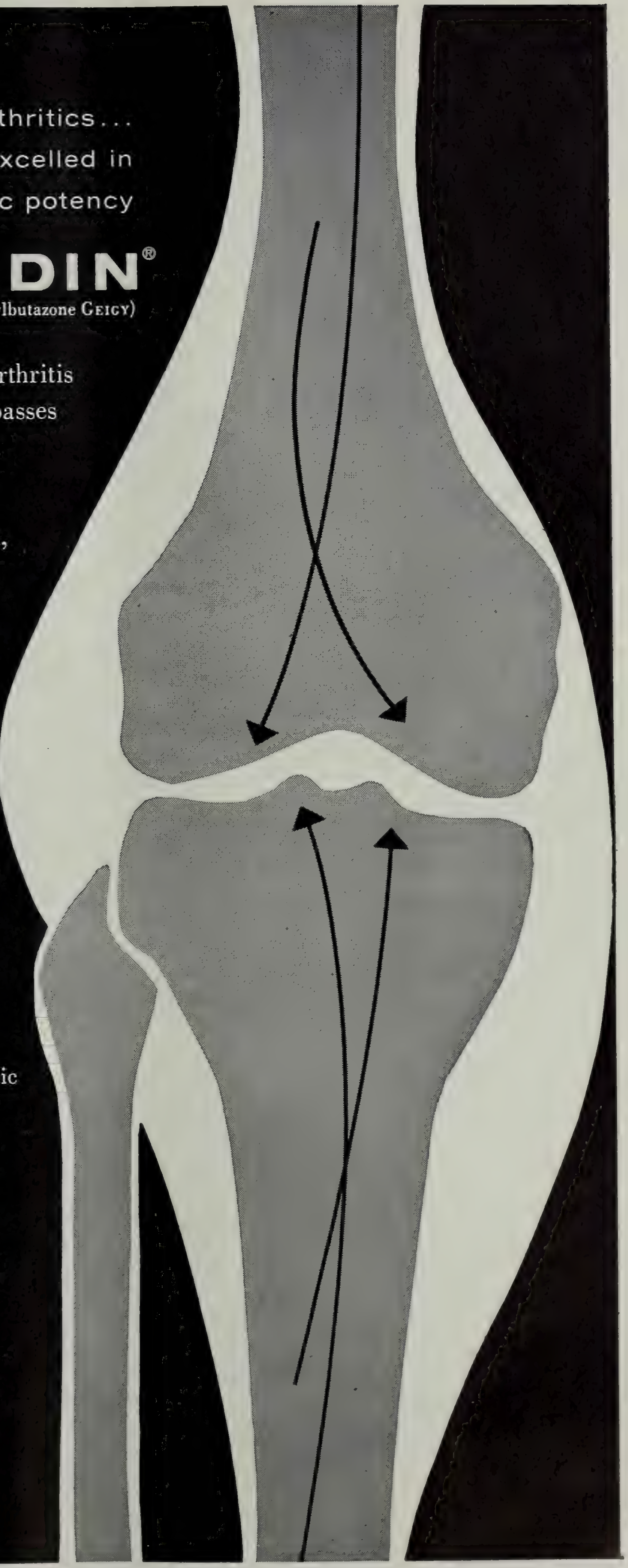

Campbell, A. J., Sedalia
Cooper, R. Lee, Warrensburg
Edwards, David R., Sedalia
Goldberg, I. E., Braymer
Hansen, A. L., Butler
Hayner, R. C., Marshall
Hopkins, Thomas J., Sedalia
Johnson, C. S., Warrensburg
Kelling, Douglas, Waverly
Koppenbrink, W. E., Higginsville
Lamy, John E., Sedalia
Lawless, C. L., Marshall
Lederer, Charles M., Warrensburg
Lusk, Charles A., Jr., Butler
McBurney, C. Alex, Slater
Magee, Robert L., El Dorado Springs
Martin, W. E., Odessa
Maxson, T. Reed, Warrensburg
Moody, Jackson C., Harrisonville
Pearse, Roy W., Jr., Nevada
Richter, William B., Stockton
Roberts, Paul A., Sweet Springs
Robinson, E. E., Adrian
Siegel, Carl D., Sedalia
Siegel, P. V., Smithton
Stauffacher, C. Gordon, Sedalia
Stewart, Robert H., Sedalia
Tracy, Herbert A., Belton
Walker, G. S., Clinton
Worley, Charles A., Sweet Springs
Wray, Rolla B., Nevada

Seventh Councilor District—170

Allebach, Hobart K. B., Kansas City
Allen, Wm. Bayne, Kansas City
Andrews, B. W., Kansas City
Barnett, Gordon P., Kansas City
Bay, M. R., Blue Springs
Becker, Richard R., Kansas City
Bergmann, Victor H., Kansas City
Berry, M. G., Kansas City
Bond, M. B., Kansas City
Boutros, Amin, Kansas City
Brams, Jack B., Kansas City
Brown, Adrian J., Kansas City
Brumm, Lawrence W., Kansas City
Buckingham, W. W., Kansas City
Buckner, Robert C., Kansas City
Buehrer, Cletus E., Lawson
Bunting, Williston P., Kansas City
Burns, B. I., Kansas City
Butcher, Robert, Kansas City
Byers, P. L., Kansas City
Caldwell, John K., Kansas City
Calovich, Emery R., Kansas City
Carlson, Hjalmar, Kansas City
Casford, Ralph S., Kansas City
Coffey, Ralph R., Kansas City
Counsell, Chester M., Kansas City
Crozier, F. A., Richmond
Culbertson, Wm. F., Kansas City
Davault, G. K., Richmond
Davis, Jack M., Kansas City
Deweese, E. R., Kansas City
Diveley, Rex L., Kansas City
Dorsch, Ervin H., Independence
Duncan, Ralph E., Kansas City
Dwyer, Hugh L., Kansas City
Eisemann, Gustave, Kansas City
Eldridge, Charles J., Kansas City
Elliott, Raymond G., Kansas City
Enna, Carl D., Kansas City
Eubank, Dillard M., Raytown
Eubank, Will R., Kansas City
Feierabend, Frank L., Kansas City
Feist, George V., Kansas City
Ferguson, Eugene H., Kansas City
Fogel, Isadore B., Kansas City
Forsythe, Robert W., Kansas City
Fowler, James W., Kansas City
Frick, J. Paul, Kansas City
Fuhrman, Donald L., Kansas City
Ganley, William C., Kansas City
Gestring, Hugh A., Kansas City
Gilkey, Harry M., Kansas City
Gist, William W., Kansas City
Goodman, LeRoy, Kansas City
Goodson, Wm. H., Jr., Kansas City
Grabske, Charles F., Independence
Graham, James W., Kansas City
Griffith, John A., Kansas City
Growdon, John A., Kansas City
Hall, Thomas B., Kansas City
Hamel, Herbert A., Kansas City
Hess, Paul D., Kansas City
Hill, J. H., Kansas City
Hodgeson, Frank H., Kansas City
Hoeper, Sam D., Grandview
Hoffman, Jacob S., Kansas City
Hoffmann, R. Lee, Kansas City
Hungate, Carroll P., Kansas City
Hunt, Claude J., Kansas City
Jacob, Walter P., Kansas City
Jansen, Robert, Kansas City
Jennett, J. Harvey, Kansas City
Johnson, John E., Prairie Village, Kan.
Johnstone, Paul N., Kansas City
Jonas, H. S., Independence
Katz, Milton, Kansas City
Keeler, James E., Kansas City
Kelly, E. H., Kansas City
Kiene, Richard H., Kansas City
Kitchen, W. M., Kansas City
Knight, John S., Kansas City
Knight, Lyle B., Lee's Summit
Knoch, H. Kermit, Kansas City
Kyger, Fred B., Kansas City
Kyner, Thomas A., Kansas City
Lapp, Harry C., Kansas City
Lehmann, E. B., Kansas City
Leitch, C. G., Kansas City
Leitz, Frank B., Kansas City
Levey, Harry B., Kansas City
Long, R. Stacy, Kansas City
McCoy, Frederick J., Kansas City
McCullough, Campbell C., Kansas City
McCunniff, Wm. B., Kansas City
McCurdy, Robert E., Kansas City
McDonnell, John F., Kansas City
McPherson, Owen P., Kansas City
McVay, James R., Kansas City
McVay, James R., Jr., Kansas City
MacInnis, Florence E., Kansas City
Marks, Mark M., Kansas City
Melgaard, S. Ross, Kansas City
Meyer, Paul W., Kansas City
Miles, George O., Kansas City
Miller, Gerald L., Kansas City
Mixson, William C., Kansas City
Montello, Samuel A., Kansas City
Morgan, David B., Kansas City
Moriarty, L. R., Kansas City
Morrow, Raymond L., Kansas City
Mullen, Leo M., Kansas City
Multhauf, Cyril J., Kansas City
Myers, John S., Mission, Kan.
Myers, Robert M., Kansas City
Myers, W. A., Kansas City
Nigro, D. M., Kansas City
Nunn, P. L., Kansas City
Olson, William E., Kansas City
Owens, Richard L., Kansas City
Perry, Ralph, Kansas City
Peterson, Carl M., Kansas City
Peterson, Walter R., Kansas City
Potter, Lee G., Kansas City
Rader, Ada B., Martin City
Rannie, Paul R., Independence
Reister, Dorothy Dailey, Kansas City
Roberts, L. M., Kansas City
Robinson, G. Wilse, Kansas City
Rodgers, Samuel U., Kansas City
Shapiro, L. M., Kansas City
Shelden, Russell D., Kansas City
Shypper, M. J., Kansas City
Sinclair, A. B., Jr., Kansas City
Singleton, J. Milton, Kansas City
Skillman, R. K., Kansas City
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Smull, Ned W., Kansas City
Stacey, Wallace, Independence
Staggs, William A., Kansas City
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Steffen, Lawrence F., Kansas City
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Teall, Raymond E., Kansas City
Thiessen, Edward H., Kansas City
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Williams, John W., Oak Grove
Williams, Joseph C., Kansas City
Williams, Luke E., Kansas City
Williams, Vincent T., Kansas City
Wilson, Clifford C., Kansas City
Winer, Herbert J., Kansas City
Winkelman, Esther, Kansas City
Woods, Walton C., Raytown
Wortmann, Robert F., Kansas City
Wu, William Q., Kansas City

Eighth Councilor District—51

Adriany, Josef, Mount Vernon
Bowman, Melvin C., Neosho
Brown, Jim, Springfield
Burch, John E., Joplin
Callaway, Guy D., Jr., Springfield
Clarke, Michael J., Springfield
DeTar, B. E., Sr., Joplin
Donley, Robert R., Monett
Elkins, Ronald F., Springfield
Ferguson, John P., Springfield
Ferrell, T. E., Springfield
Glover, Kenneth, Mount Vernon
Gorelick, David F., Springfield
Graves, A. J., Mount Vernon
Hahn, Andrew L., Springfield
Hall, Durward G., Springfield
H'Doubler, Francis Todd, Jr., Springfield
Hoover, H. Lee, Springfield
Hurst, W. W., Joplin
Isbell, Charles H., Carthage
Johnston, J. L., Springfield
Knabb, Harris E., Springfield
Knabb, Kenneth E., Springfield
Lemmon, George Bruce, Jr., Springfield
Litton, Lyle D., Springfield
Lockhart, Charles E., Springfield
Lowe, H. A., Jr., Springfield
McIntire, Emery J., Carthage
McNew, W. T., Carthage
Macdonnell, Tommy, Marshfield
Maher, Robert W., Springfield
Morton, Paul C., Springfield
Musick, J. D., Springfield
Napper, Marvin L., Springfield
Papp, Sandor D., Joplin
Park, W. I., Springfield
Peterson, Stanley S., Springfield
Rainwater, E. H., Springfield
Royce, J. J., Noel

Schwartz, Eugene J., Springfield
Scorse, S. W., Joplin
Silsby, Don J., Springfield
Simpson, Emerson L., Springfield
Smith, C. Souter, Springfield
Threadgill, Jesse M., Forsyth
White, R. Ned, Springfield
Wilson, Daniel R., Mount Vernon
Wood, George H., Carthage
Yates, J. Lewis, Mount Vernon

Ninth Councilor District—10

Burns, T. J., Houston
Butts, James D., Rolla
Carrington, H. W., Lebanon
Connor, S. W., Mountain Grove
Cooper, C. W., Thayer
Davis, H. H., Rolla
Hope, James L., Lebanon
Smith, Rollin H., West Plains
Stricker, E. A., St. James
Summers, J. H., Lebanon

Tenth Councilor District—10

Bull, Ben M., Ironton
Cook, Norman L., Cape Girardeau
Crowe, John T., Cape Girardeau
Finney, William O., Chaffee
Kinder, Jim, Cape Girardeau
Kneibert, F. L., Poplar Bluff
Menne, Marvin C., Ironton
Roebber, Harry M., Bonne Terre
Sarno, Samuel M., Morehouse
Watkins, George L., Farmington

Guest Speakers—14

Abel, Stuart, Chicago
Alphin, Thomas H., Washington
Bellamy, Albert W., Los Angeles
Bernreiter, Michael, Kansas City
De Bakey, M. E., Houston
del Regato, J. A., Colorado Springs
Diamond, Henry D., New York
Foley, William T., New York
Johnson, Sture A. M., Madison
Kiehn, Clifford L., Cleveland
Martin, Leonard W., Park Forest
Mulholland, Henry B., Charlottesville
Snyder, Howard E., Winfield
Williamson, William P., Kansas City, Kan.

Guest Physicians—22

Budd, John J., Jr., Brentwood
Day, Maxwell, Rapid City
De Grady, Harold J., Prairie Village
Doran, Alex, New Albany
Dwyer, Hugh L., Jr., New Haven
Faris, Brunel D., Oklahoma
Flanders, Robert, Manchester
Forbes, Burton L., Denver
Huck, R. F., St. Louis
Lam, Robert C., Leavenworth
Morley, Fred H., Kansas City
Newton, Jack W., St. Louis
Nielsen, Arnold L., El Reno
O'Neil, George J., Bloomington
Pearce, Eugene W. J., Merriam
Richey, Theodore W., Denver
Schulte, E. J., Prairie Village
Tucker, Eugene F., St. Louis
Tverberg, M. S., Mauston
Walker, Starnes E., Kansas City
Welch, Eldrod E., San Antonio
Williams, Maysil M., Kansas City

There were registered 184 exhibitors, 2 physical therapists, 3 R.N.s, 132 medical technicians, 6 interns, 5 students, 24 wives, 504 physicians and 12 guests. Total registration 872.

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Annual Banquet

Upper left: Men receiving 50 Year Emblems who atttended Annual Banquet were O. B. Zeinert, M.D., University City; E. C. Snavely, M.D., Sedalia; George S. Walker, M.D., Clinton; Charlie W. Kirk, M.D., Hopkins; Paul Vinyard, M.D., St. Louis; Willis E. Keith, M.D., Kansas City; William H. Goodson, M.D., Liberty; Samuel T. Mead, M.D., Slater; Chester M. Counsell, M.D., Kansas City; Charles T. Shepherd, M.D., St. Louis. Center left: Past Presidents who attended the banquet were G. Wilse Robinson, M.D., Kansas City; W. Logan Allee, M.D., Eldon; Victor B. Buhler, M.D., Kansas City; James R. McVay, M.D., Kansas City; H. E. Petersen, M.D., St. Joseph; Curtis H. Lohr, M.D., St. Louis; Guy N. Magness, M.D., University City; Robert Mueller, M.D., St. Louis; W. A. Bloom, M.D., Fayette; J. William Thompson, M.D., St. Louis. Lower left: Among those seated at the speakers' table were Dr. and Mrs. Carl F. Vohs, St. Louis, President; Dr. and Mrs. Walter S. Sewell, Springfield, President-Elect; Dr. W. F. Francka, Hannibal, Chairman of the Council. Center: Mr. Ethan A. H. Shepley, St. Louis, Chancellor of Washington University, was the speaker. Upper right: Dr. Sewell presents a Past President's Key to Dr. Vohs. Center right: Dr. Sewell receives the gavel from Dr. Vohs. Lower right: Among those seated at the speakers' table were Mrs. W. F. Francka, Hannibal; Dr. Thomas H. Alphin, Washington, D. C.; Mrs. Robert Flanders, Manchester, N. H.; Mrs. Armand D. Fries, St. Louis.

Towns and County

A

Adrian, Bates County
Affton, St. Louis County*
Albany, Gentry County
Altenburg, Perry County
Anderson, McDonald County
Appleton City, St. Clair County
Ashland, Boone County
Aurora, Lawrence County
Ava, Douglas County

B

Bakersfield, Ozark County
Ballwin, St. Louis County*
Barnard, Nodaway County
Belton, Cass County
Berkeley, St. Louis County*
Bethany, Harrison County
Bloomfield, Stoddard County
Blue Springs, Jackson County
Bolivar, Polk County
Bonne Terre, St. Francois County
Boonville, Cooper County
Bourbon, Crawford County
Bowling Green, Pike County
Branson, Taney County
Brashear, Adair County
Braymer, Caldwell County
Brentwood, St. Louis County*
Bridgeton, St. Louis County*
Brookfield, Linn County
Browning, Linn County
Brunswick, Chariton County
Buffalo, Dallas County
Bunceton, Cooper County
Butler, Bates County

C

Cabool, Texas County
Cainsville, Harrison County
California, Moniteau
Camdenton, Camden County
Cameron, Clinton County
Campbell, Dunklin County
Canton, Lewis County
Cape Girardeau, Cape Girardeau County
Cardwell, Dunklin County
Carl Junction, Jasper County
Carrollton, Carroll County
Carthage, Jasper County
Caruthersville, Pemiscot County
Cassville, Barry County
Cedar Hill, Jefferson County
Centralia, Boone County
Chaffee, Scott County
Charleston, Mississippi County
Chesterfield, St. Louis County*
Chillicothe, Livingston County
Clarksville, Pike County
Clayton, St. Louis County*
Clinton, Henry County
Coatsville, Schuyler County
Cole Camp, Benton County
Columbia, Boone County
Concordia, Lafayette County
Conway, Laclede County
Crane, Stone County
Creve Coeur, St. Louis County*
Crystal City, Jefferson County
Cuba, Crawford County

D

Dearborn, Platte County
Desloge, St. Francois County
DeSoto, Jefferson County
Dexter, Stoddard County
Doniphan, Ripley County
Downing, Schuyler County
Drexel, Cass County

E

East Prairie, Mississippi County
Edgerton, Platte County
Edina, Knox County
Eldon, Miller County
El Dorado Springs, Cedar County
Elsberry, Lincoln County
Eureka, St. Louis County*
Excelsior Springs, Clay County

F

Fairfax, Atchison County
Farmington, St. Francois County
Faucett, Buchanan County
Fayette, Howard County
Fenton, St. Louis County*
Ferguson, St. Louis County*
Festus, Jefferson County
Fillmore, Andrew County
Flat River, St. Francois County
Florissant, St. Louis County*
Forsyth, Taney County
Fort Leonard Wood, Phelps County
Fredericktown, Madison County
Frontenac, St. Louis County*
Fulton, Callaway County

G

Gallatin, Daviess County
Galt, Grundy County
Garden City, Cass County
Gashland, Clay County
Gideon, New Madrid County
Glasgow, Howard County
Glendale, St. Louis County*
Golden City, Barton County
Gordonville, Cape Girardeau County
Grandview, Jackson County
Grant City, Worth County
Greenfield, Dade County
Green Ridge, Pettis County

H

Hamilton, Caldwell County
Hannibal, Marion County
Harrisonville, Cass County
Hartville, Wright County
Hayti, Pemiscot County
Herculaneum, Jefferson County
Hermann, Gasconade County
Hickman Mills, Jackson County
Higginsville, Lafayette County
Hillsboro, Jefferson County
Holden, Johnson County
Hopkins, Nodaway County
Hornersville, Dunklin County
Houston, Texas County
Houstonia, Pettis County
Humansville, Polk County
Hume, Bates County
Huntsville, Randolph County

I

Iantha, Barton County
Independence, Jackson County
Ironton, Iron County

J

Jackson, Cape Girardeau County
Jefferson Barracks, St. Louis County*
Jefferson City, Cole County
Jennings, St. Louis County*
Joplin, Jasper County

K

Kahoka, Clark County
Kansas City, Jackson County
Kennett, Dunklin County
Keytesville, Chariton County
Kimmswick, Jefferson County
King City, Gentry County
Kirksville, Adair County
Kirkwood, St. Louis County*
Knob Noster, Johnson County
Koch, St. Louis County*

L

Laddonia, Audrain County
Ladue, St. Louis County*
La Grange, Lewis County
Lakeview Heights, Benton County
Lamar, Barton County
La Monte, Pettis County
Lancaster, Schuyler County
Lathrop, Clinton County
Lawson, Ray County
Leadwood, St. Francois County
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M

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Marshfield, Webster County
Marthasville, Warren County
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Montrose, Henry County
Morehouse, New Madrid County
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Mound City, Holt County
Mountain Grove, Wright County
Mountain View, Howell County
Mount Vernon, Lawrence County

N

Naylor, Ripley County
Neosho, Newton County
Nevada, Vernon County
New Bloomfield, Callaway County
Newburg, Phelps County
New Florence, Montgomery County
New Haven, Franklin County
New Madrid, New Madrid County
Noel, McDonald County
Norborne, Carroll County
Normandy, St. Louis County*
North Kansas City, Clay County

O

Oak Grove, Jackson County
Odessa, Lafayette County
O'Fallon, St. Charles County
Olivette, St. Louis County*
Oran, Scott County
Oregon, Holt County
Osceola, St. Clair County
Overland, St. Louis County*
Owensville, Gasconade County
Ozark, Christian County

P

Pacific, Franklin County
Palmyra, Marion County
Paris, Monroe County
Parkville, Platte County
Parma, New Madrid County
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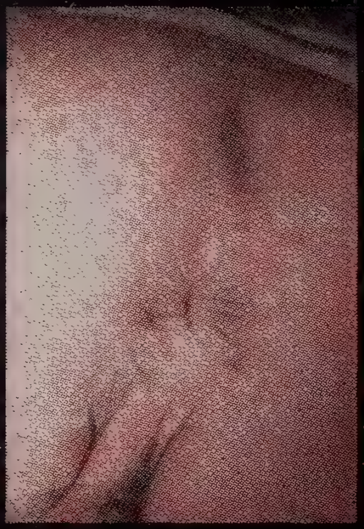


BEFORE
Reddened, fissured and excoriated perianal skin, and whitening of the anal folds, accompanied by intense burning and itching of 3 years' duration.

A new

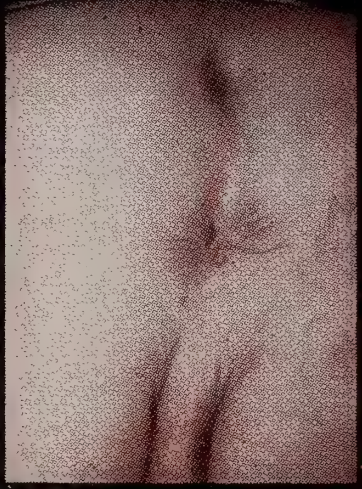
therapeutic approach

with inherent safety

in PRURITUS ANI

HYDROLAMINS®

TOPICAL AMINO ACID THERAPY



AFTER
Same case after treatment with Hydrolamins. Note healing of the inflamed, fissured and excoriated areas and of the whitened anal folds.

Unique physiologic barrier—topical amino acids—brings rapid relief (98%[1]) and complete healing (88%[1])

"...the objectives of therapy in pruritus ani can be listed under 3 headings:

(1) **relieve itching:** [Hydrolamins produced immediate relief of intractable itching in 98% of patients. The antipruritic effect of one application lasts about twenty-four hours.[1]]

(2) **accelerate healing,** [Hydrolamins rapidly and completely healed reddened, fissured, macerated and ridged perianal lesions in 88% of cases.[1]]

(3) **allow natural healing without trauma due to physical, chemical, allergic, or microbiologic agents."[2]** [The amino acids of Hydrolamins promote safe, natural healing while the ointment protects the perianal area from irritation.[1]]

Due to the rapidity of action of Hydrolamins, it is believed that protein-precipitating irritants, responsible for the pruritus, are neutralized. Hydrolamins also forms a biochemical barrier against further irritation.

SUPPLIED: In 1 oz. and 2.5 oz. tubes.

Lewal Pharmaceutical Company, Chicago 14, Illinois

1. Bodkin, L.G., and Ferguson, E.A., Jr.: Successful Ointment Therapy for Pruritus Ani, Am. J. Digest. Dis. 18:59 (Feb.) 1951.
2. Fromer, J.L.: Dermatologic Concepts and Management of Pruritus Ani, Am. J. Surg. 90:805 (Nov.) 1955.

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Perryville, Perry County
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Portageville, New Madrid County
Potosi, Washington County
Princeton, Mercer County

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Robertson, St. Louis County*
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Rock Hill, St. Louis County*
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Rolla, Phelps County
Rosendale, Andrew County
Rothville, Chariton County

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Steelville, Crawford County
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Strasburg, Cass County
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T

Tarkio, Atchison County
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Trenton, Grundy County
Troy, Lincoln County

U

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Unionville, Putnam County
University City, St. Louis County*
Urbana, Dallas County
Urich, Henry County

V

Valley Park, St. Louis County*
Van Buren, Carter County
Vandalia, Audrain County
Versailles, Morgan County

W

Walnut Grove, Greene County
Wardell, Pemiscot County
Warrensburg, Johnson County
Warrenton, Warren County
Warsaw, Benton County
Washington, Franklin County
Waverly, Lafayette County
Waynesville, Pulaski County
Webb City, Jasper County
Webster Groves, St. Louis County*
Wellsville, Montgomery County
Weston, Platte County
West Plains, Howell County
Willow Springs, Howell County
Windsor, Henry County
Winona, Shannon County
Winston, Daviess County

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* May belong to St. Louis County or to St. Louis Medical Society.

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RHINALL nose drops

Safe for children and adults
No burning or irritation
No bad taste or after-reactions
No risk of sensitization

Contains:
Phenylephrine Hydrochloride 0.15 %
"Propadrine" Hydrochloride 0.3 %
in an isotonic saline menstruum

For convenience, also available in ½ ounce plastic spray bottle.

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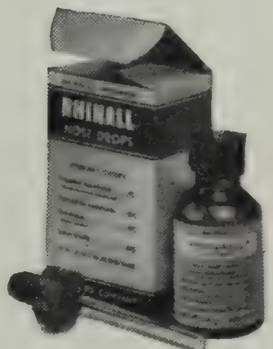

Alphabetical List of Members

A

Aaron, George A., Independence
Abele, William A., Boonville
Abell, Walter E., St. Louis
Abrams, Morris, St. Louis
Ackerman, Lauren V., St. Louis
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Adelman, Arthur, Kansas City
Adler, Benard C., University City
Agress, Harry, St. Louis
Ahern, Archibald M., St. Louis
Ahlefeld, Charles B., Kansas City
Ahlering, George H., St. Louis
Aiken, G. A., Marshall
Aiken, Richard F., Marshall
Aisenstadt, E. Albert, Kansas City
Aitken, Louis F., St. Louis
Aks, Daniel, Kansas City
Alberty, Omer L., Carl Junction
Albrecht, Franklin H., St. Louis
Aldrich, James T., St. Louis
Alex, Morris, St. Louis
Alexander, Harry L., St. Louis
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Allaman, J. M., Sarasota, Florida
(Member Buchanan County)
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Allbee, Roger H., Crystal City
Allee, James W., St. Petersburg, Fla.
(Member Boone County)
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Allen, Charles E., Kansas City
Allen, C. H., Independence
Allen, Claude J., Rich Hill
Allen, Duff S., St. Louis
Allen, Erroll W., Carrollton
Allen, Henry C., Clayton
Allen, Hollis N., St. Louis
Allen, Horace E., Columbia
Allen, Jerry H., Springfield
Allen, Joseph E., Columbia
Allen, Melvin A., Clayton
Allen, Robert E., Kansas City
Allen, Sylvia, Kansas City
Allen, Willard M., St. Louis
Allen, William B., Kansas City
Allen, William C., Glasgow
Allen, Wm. E., Jr., St. Louis
Allen, William H., Nevada
Allen, William H., Jr., Hume
Alsop, Webb S., Jr., Kansas City
Althaus, Carl Jacob, St. Louis
Altheide, Harvey E., Ladue
Altheide, J. Paul, St. Louis
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Altringer, Arthur N., Kansas City
Altringer, Mary P., Kansas City
Alvis, Bennett Y., St. Louis
Alvis, Edmund B., St. Louis
Ames, Alfred C., Mountain Grove
Ames, William H., St. Joseph
Amos, James R., Springfield
Anast, C. S., Columbia
Andersen, Elmer J. T., Montgomery City
Anderson, A. Isadore, Kansas City
Anderson, Dwight W., Moberly
Anderson, Raymond B., Kansas City
Anderson, Richard W., Kansas City
Andrae, Robert L., Louisiana
Andreassen, Dimil F., Portland, Oregon
(Member Franklin-Gasconade-Warren Counties)
Andrews, Berneil W., Kansas City
Andrus, Bailey C., Kansas City
Antsey, George, St. Louis
Anthony, Dallas, Springfield
Appleberry, Charles H., Flat River
Appleford, George B., Kansas City
Aquino, Philip J., Caruthersville
Archer, Perry C., Shelbyville
Arms, Arnold V., Kansas City
Armstrong, Gene F., Kansas City
Arneson, Axel N., St. Louis
Arney, William G., St. Louis
Arnold, Eugene L., St. Louis
Arnold, Herbert M., Lamar
Arnold, Roger C., St. Louis
Aronberg, Lawrence M., St. Louis
Arzt, Franz, Fort Lauderdale, Florida
(Member St. Louis Medical Society)
Aschman, Theodore H., Kansas City
Asel, Norman D., Kansas City
Asher, Arthur G., Kansas City
Ashley, Hugh V., Cape Girardeau
Ashley, Hugh, Jr., Cape Girardeau
Ashley, Thomas E., Springfield
Atcheson, Bellfield, Kansas City
Atherton, Mary J., Springfield
Atkinson, Thomas E., Jr., Springfield
Atwell, Floyd C., Kansas City
Atwood, John M., Kansas City
Aubin, Francis W., Branson
AufderHeide, G. Russell, St. Louis
Aull, John, Kansas City
Auner, Cecil R., Washington, D. C.
(Member St. Louis Medical Society)
Austin, Martin G., St. Louis
Ayars, Treston R., St. Louis
Azzouni, J. N., St. Louis

B

Bachmann, Paul L., Independence
Backer, Matt H., Jr., St. Louis
Backlar, Joseph, Richmond Heights
Baer, Alvin J., Kansas City
Bahn, Charles, Cape Girardeau
Bailey, Drennan, St. Louis
Bailey, Frank A., St. Louis
Bailey, Fred W., St. Petersburg, Florida
(Member St. Louis Medical Society)
Bailey, William H., St. Louis
Baird, J. Edward, Excelsior Springs
Baker, James M., Columbia
Baker, Josephine D., Moberly
Baker, Philip J., Kansas City
Baker, Warren C., Savannah
Balazs, Karl J., St. Louis
Baldwin, Paul, Kennett
Bales, Eugene L., Carrollton
Ball, James E., Kansas City
Ballard, Volney Bryce, Kansas City
Ballew, John W., St. Louis
Banet, Samuel R., St. Louis
Banton, William C., St. Louis
Barber, John J., Walnut Grove
Barbour, Marvin R., Poplar Bluff
Bardenheier, J. Phil, St. Louis
Bare, Edward F., Tarkio
Barelli, Pat A., Kansas City
Barger, O. B., Harrisonville
Barker, Jesse W., St. Louis
Barlow, Donal E., Joplin
Barnes, Francis M., St. Louis
Barnes, Raymond F., Webster Groves
Barnes, Robert H., Kansas City
Barnes, Seth S., Cape Girardeau
Barnett, C. H., Bolivar
Barnett, Floyd A., Paris
Barnett, Gordon P., Kansas City
Barnett, Julian H., Kirkwood
Barnett, Norman H., Joplin
Baron, William, St. Louis
Barone, Paul L., Nevada
Barrett, Scott R., St. Louis
Barrow, Jack, Ladue
Barry, Gerald W., Kansas City
Barry, John W., Kansas City
Barry, William B., Kansas City
Barrymore, Eugene, Bowling Green
Bartels, Leo G., St. Louis
Bartlett, Robert W., St. Louis
Bartlett, Willard, Jr., Clayton
Bartnick, Mitchel L., St. Louis
Baskett, Edgar D., Poplar Bluff
Bass, B. J., Salem
Bassett, Robert B., St. Louis
Bates, George C., North Kansas City
Battersby, Richard S., Columbia
Bauer, John D., St. Louis
Bauer, Joseph A., St. Louis
Bauer, Maria, Granite City, Illinois
(Member St. Louis Medical Society)
Bauer, Otto, Granite City, Illinois
(Member St. Louis Medical Society)
Bauer, Robert A., St. Louis
Baum, Frank E., Kansas City
Bauman, Henry C., Maryville
Baumann, A. R., Steelville
Baumeister, Jacqueline M., Kansas City
Baumgarten, Walter, Jr., St. Louis
Baumhardt, Edward E., Kansas City
Baur, Alfred K., Fulton
Bawell, Malcolm B., St. Louis
Bay, Merrill R., Blue Springs
Beal, Homer, Malden
Beam, Sim F., St. Louis
Beare, J. Byron, St. Louis
Beasley, L. Kenneth, St. Louis
Beck, Leroi, St. Joseph
Beck, Paul M., St. Joseph
Becke, William G., St. Louis
Beckemeyer, W. Albert, Sedalia
Becker, Bernard, St. Louis
Becker, Edward J., St. Louis
Becker, George H., St. Louis
Becker, Richard R., Kansas City
Beckett, Theodore C., Boonville
Beckette, Edmund S., St. Louis
Beckman, Donald E., Clarksville
Beckman, William, Strasburg
Bee, James E., Kansas City
Beecher, Sheldon B., Caruthersville
Beers, Ellsworth G., Seymour
Behan, Lawrence G., Pensacola, Florida
(Member Lincoln-St. Charles Counties)
Behrens, Donald T., Normandy
Beisbarth, Albert, St. Louis
Beisbarth, Carl C., St. Louis
Belden, Edgar A., Jefferson City
Bell, Charles T., Maryville
Bell, Robert M., St. Louis
Bell, William F., Lee's Summit
Belot, Monti L., Parkville
Belsey, Wallace A., Campbell
Benincasa, Anthony V., St. Louis
Benjamin, Durand, St. Louis
Bennett, James D., Kansas City
Bennett, Joseph D., Branson
Benoit, Hector W., Jr., Kansas City
Benson, Scott C., St. Joseph
Berard, Louis N., St. Louis
Berenson, Sheldon E., Kansas City
Berg, Leonard, St. Louis
Berg, Ralph, St. Louis
Berger, Dan L., Kansas City
Berger, Edward J., St. Louis
Bergman, Hugo F., St. Louis
Bergmann, Martin, St. Louis
Bergmann, Victor H., Kansas City
Bergner, Grace E., St. Louis
Berland, Harry I., St. Louis
Berman, Joseph P., St. Louis
Berman, William, St. Louis
Bernard, Harvey R., St. Louis
Berndsen, Gerard H., Rock Hill
Berney, Francis J., St. Joseph
Bernreiter, Michael, Kansas City
Bernstorff, Paul H., Jennings
Berry, Guy N., Kansas City
Berry, John W., Clayton
Berry, Maxwell G., Kansas City
Berry, Paul T., Troy
Bersche, Bertram L., St. Louis
Berwald, Irwin I., St. Louis
Bess, William E., Sedalia
Best, Robert, Higginsville
Bettonville, Paul J., Jr., Brentwood
Bickel, Vern T., Lamar
Bickford, Wallace M., Miami
Bieri, Earl J., St. Louis
Biggins, Cloice H., Ukiah, California
(Member Buchanan County)
Biggs, Fred J., Jr., Poplar Bluff
Biggs, Harry L., Raytown
Biggs, James B., Bowling Green
Bikales, Victor W., Kansas City
Bills, Marvin L., Kansas City
Bilsky, Nathan, St. Louis
Bindbeutel, Arthur H., St. Louis
Bindbeutel, D. A., St. Louis
Bing, Richard J., St. Louis
Bircher, John L., St. Louis
Birdsall, Thomas C., St. Louis
Birenbaum, Aaron, St. Louis
Birenboim, Irvin M., Kansas City
Birney, William P., Hannibal
Birsner, Frank H., Carthage
Birsner, Louis J., St. Louis
Bishop, Marion D., Florissant
Bishop, Mary M., Ferguson
Bisno, Daniel, Clayton
Blache, J. Owen, St. Louis
Black, Don A., Kansas City
Black, Eugene C., Kansas City
Black, James M., St. Louis
Black, Mervin H., Joplin
Black, Samuel P. W., Columbia
Black, William D., St. Louis
Blacklock, David E., King City
Blackman, Nathan, Kirkwood

Blackmore, Thomas A., Windsor
Blair, Vilray P., Jr., St. Louis
Blalock, William N., St. Louis
Bohne, William R., St. Louis
Bland, Warren W., Vandalia
Blanke, Otto T., Joplin
Blankenship, Dale Minton, Ballwin
Blankenship, George W., Anderson
Blaylock, Richard D., Jackson
Bleyer, Adrien S., St. Louis
Block, Arnold S., St. Louis
Bloom, W. A., Fayette
Blumenschein, J. C., Independence
Bock, L. H., St. Louis
Bockelman, Clifford H., Brentwood
Boedeker, Roy V., St. Louis
Boemer, Lilburn C., St. Louis
Boger, J. W., Sedalia
Boggs, Roy E., St. Louis
Bohne, Wm. R., St. Louis
Bohnsack, Ralph W., Brookfield
Bohrer, E. Royse, Jefferson City
Bohrer, Harry C., St. Louis
Boldizar, Albert G., St. Louis
Boldt, Thomas H., St. Louis
Boles, Clifford R., Clayton
Boley, James O., Kansas City
Bolgar, Bartholomew, Festus
Bolin, N. Venay, Kansas City
Bolner, Anne U., Columbia
Bond, Marcus B., Kansas City
Bondurant, Bryce H., Kirkwood
Bonebrake, M. D., Springfield
Bonfanti, Albert L., St. Louis
Boody, Robert J., Kansas City
Booth, Herbert R., Hamilton
Border, Charles T., Garland, Texas
(Member Jackson County)
Bordy, Marvin D., Kansas City
Borenstine, Joseph, Kansas City
Borklund, Maurice K., Independence, Kansas
(Member Clay County)
Bortnick, Arthur R., St. Louis
Boteler, George M., St. Joseph
Botwin, Arnold E., Kansas City
Boughnou, Harvey P., Kansas City
Bourke, Timothy S., Kansas City
Boutros, Amin, Kansas City
Bowdern, Edward H., Richmond Heights
Bowdish, Palmer R., Marshall
Bowerman, Harold H., Clayton
Bowersox, Warren A., St. Louis
Bowman, M. C., Neosho
Bowser, John F., Kansas City
Box, Earnest M., Springfield
Boyd, Arthur M., St. Louis
Bozzo, Raymond J., Washington
Bradley, Frank R., St. Louis
Bradshaw, W. D., Clinton
Brady, Charles H., Sedalia
Brady, Hugh S., Concordia
Brams, Jack B., Kansas City
Brand, Earl LeRoy, Webster Groves
Brandon, W. L., Poplar Bluff
Brasher, Ben H., Lexington
Brasher, Charles A., Mt. Vernon
Braufman, Harvey S., St. Louis
Bredall, Jerome J., Perryville
Breece, Grady L., Jr., Marble Hill
Breen, Lois T., Kansas City
Breid, Jacob, Trenton
Bremser, Harry L., St. Louis
Brennan, John A., Farmington
Brennan, Patricia A., St. Louis
Brennan, Raymond J., Chillicothe
Brennan, Robert A., St. Louis
Brennan, Robert V., Kirkwood
Brenner, Paul A., Owensville
Brereton, Robert L., Kirkwood
Breuer, Robert E., Newburg
Brewer, Lake, Ridgeway
Brewer, Thomas, Fulton
Bricker, Eugene M., St. Louis
Bridgens, James G., Independence
Bridges, James R., Kahoka
Brielmaier, Charles R., St. Louis
Briscoe, John R., Maplewood
Bristow, Arthur S., Princeton
Bristow, Robert B., St. Joseph
Brockelmann, Erich, St. Louis
Brodeur, Armand E., Kirkwood
Bromberg, Leon, Crockett, Texas
(Member St. Louis Medical Society)
Bronson, Shael S., St. Louis
Brooke, Clement E., Columbia
Brookes, Henry Spence, Jr., St. Louis
Brookes, Robert D., St. Louis
Brookreson, Alton F., Poplar Bluff
Brooks, Arthur C., St. Louis
Brooks, John M., Springfield
Brother, George M., St. Louis
Broun, Goronwy O., St. Louis
Broun, Goronwy O., Jr., Seattle, Washington
(Member St. Louis Medical Society)
Brown, Adrian J., Kansas City
Brown, Alex L., Springfield
Brown, Charles W., St. Louis
Brown, D. J., Boonville
Brown, Daniel W., Parks AFB, California
(Member St. Louis Medical Society)
Brown, E. Eugene, St. Louis
Brown, Eugene R., University City
Brown, Irwin S., Kansas City
Brown, James B., St. Louis
Brown, James T., Springfield
Brown, John E., Perry
Brown, John J., Fulton
Brown, Lyman D., Springfield
Brown, Robert S., Kansas City
Brown, Seymour, St. Louis
Brown, William R., Overland Park, Kansas
(Member Jackson County)
Brown, William S., St. Louis
Brownfield, Samuel T., Brookfield
Brownsberger, Robert H., Appleton City
Broyles, Glen H., Kansas City
Broyles, Watkins A., Bethany
Bruce, Helen L., St. Louis
Bruce, James G., Jefferson City
Bruce, Leo A., Sikeston
Brumm, Lawrence W., Kansas City
Bruner, Claude R., Columbia
Bruner, Robert E., Kansas City
Brust, Carl H., Mission, Kansas
(Member Jackson County)
Bryan, James H., St. Louis
Bryan, William H., Jr., Kansas City
Bryan, William T. K., St. Louis
Bublis, Mary D., Temple, Texas
(Member St. Louis Medical Society)
Bublis, Norbert J., Temple, Texas
(Member St. Louis Medical Society)
Buck, Ronald, St. Joseph
Buck, Ulysses G., Rothville
Buckingham, William, Kansas City
Buckner, Robert C., Kansas City
Buckthorpe, Thelma C., Sikeston
Budke, Harold A., Kansas City
Buehler, Carl T., Jr., Eldon
Buehrer, Cletus E., Lawson
Buhler, Victor B., Kansas City
Bukantz, Samuel C., Webster Groves
Bulger, Harold A., St. Louis
Bull, Ben M., Ironton
Bumgarner, James E., Columbia
Bunch, Rob R., St. Louis
Bunting, Williston P., Kansas City
Burch, John E., Joplin
Burdette, Walter, St. Louis
Burford, Cyrus E., St. Louis
Burford, E. Humber, St. Louis
Burford, Thomas H., St. Louis
Burke, J. P., Jr., Albuquerque, New Mexico
(Member Moniteau County)
Burke, Robert J., St. Louis
Burkey, Jordan W., Springfield
Burkhardt, Edward F., St. Louis
Burnett, Jack M., St. Louis
Burney, Wallace S., Miller
Burns, Beryl I., Kansas City
Burns, Francis J., St. Louis
Burns, Francis R., Hannibal
Burns, Jonathan E., Charles Town, West Virginia
(Member Jackson County)
Burns, Stanley S., St. Louis
Burns, Thomas J., Houston
Burns, Thomas W., Columbia
Burnside, Charles R., Kirkwood
Burst, Donald O., St. Louis
Burstein, Robert, St. Louis
Busch, Anthony K., St. Louis
Busiek, Paul J., Springfield
Busiek, Urban J., Springfield
Bussmann, Donald W., Clayton
Butcher, Harvey R., Jr., St. Louis
Butcher, Robert W., Kansas City
Butler, E. F., St. Joseph
Butterworth, Nelson S. C., Joplin
Butts, James D., Rolla
Byars, Louis T., St. Louis
Byers, Philip L., Kansas City
Byland, Benjamin F., Maryville
Byland, Samuel J., Wellsville
Byrd, Homer E., Carthage
Byrne, John E., Ft. Leonard Wood
(Member St. Louis Medical Society)

C

Cacioppo, Joseph E., St. Louis
Caffrey, Raymond J., Grandview
Cain, Alvin R., Ft. Leonard Wood
Cain, Charles F., Caruthersville
Caldwell, John K., Kansas City
Calkins, Delevan, St. Louis
Callaway, G. D., Springfield
Callaway, Guy D., Jr., Springfield
Callaway, Luther M., Kansas City
Callihan, C. F., West Plains
Calodney, Martin M., St. Louis
Calovich, Emery R., Kansas City
Calvert, Lewis C., Weston
Camel, H. Marvin, St. Louis
Campbell, Albert J., Sedalia
Campbell, Cecil S., St. Louis
Campbell, Edward D., Cape Girardeau
Campbell, Frederick B., Kansas City
Campbell, James E., Macon
Campbell, John G., Kansas City
Campos, Francisco J., St. Louis
Canella, John M., Hannibal
Canepa, Francis J., St. Louis
Canepa, John B., St. Louis
Canlas, Emilio M., Poplar Bluff
Cannon, Edward M., St. Louis
Canty, Eugene J., St. Charles
Capetti, Alex P., Aurora
Cappel, Powel B., St. Louis
Caravelli, Anthony F., St. Louis
Carbaugh, Glenn C., Kansas City
Carduff, Jay J., Kansas City
Carleton, Charles E., Jr., Farmington
Carlin, Albert L., Stanberry
Carlin, Eugene J., Steele
Carlin, M. Richard, St. Louis
Carlisle, John B., Sedalia
Carlson, Arne E., St. Louis
Carlson, Hjalmar E., Kansas City
Carmichael, Francis A., Jr., Kansas City
Carnahan, C. E., Bourbon
Carney, Joseph E., Jr., St. Louis
Carpenter, George T., St. Joseph
Carpenter, George W., Chillicothe
Carpenter, Wallace, Rockport
Carr, A. D., St. Louis
Carrier, Edson C., Kansas City
Carrington, Howard W., Lebanon
Carroll, George A., St. Louis
Carroll, Grayson, St. Louis
Carroll, Percy J., St. Louis
Carroll, Thomas W., Lamar
Carron, Oscar A., Perryville
Carter, Howard, Hamilton
Carter, James R., Neosho
Carter, William W., Clayton
Casady, Gilbert N., Smithville
Casebolt, Buford T., Kansas City
Casebolt, Milton B., Kansas City
Casey, Shederic A., Lebanon
Casford, Ralph S., Kansas City
Cashman, John W., Kansas City
Cason, Elbert H., St. Louis
Cassel, Melvin A., St. Louis
Cassidy, Leslie D., St. Louis
Castelaw, Rush E., Kansas City
Castles, John E., Kansas City
Catanzaro, Anthony F., St. Louis
Catanzaro, Francis J., Kirkwood
Cavaness, Ernest W., Leucadia, California
(Member Jackson County)
Centner, Paul J., Kansas City
Chalkley, Judson I., Columbia
Chamberlain, Gilbert L., Boonville
Chambers, James Q., Jr., Kansas City
Chamness, James T., St. Louis
Chandler, Orville B., New Madrid
Chapman, Arthur H., Kansas City
Chapman, J. R., Steele
Chapman, Samuel B., Kansas City
Charles, Benjamin H., St. Louis
Charles, Cecil M., Clayton
Charnas, Raymond M., St. Louis
Chastain, Maurice W., North Kansas City
Chernoff, Amoz I., St. Louis
Cherre, Charles J., St. Louis
Chesney, George W., Joplin
Chiarottino, Joseph F., St. Joseph
Chiasson, E. Chaille, Columbia
Chieffi, Margaret, St. Louis
Chiles, David R., Smithville
Chilton, James C., Hannibal
Chinsky, Murray, St. Louis
Christ, Martin H., St. Joseph
Chute, W. Deward, Moberly
Ciampa, Thomas, Clayton
Ciapciak, Stanley J., St. Louis

Cibis, Paula A., St. Louis
Claiborn, Edward G., Camdenton
Clancy, James F., St. Louis
Clapsaddle, Clare J., Ste. Genevieve
Clark, Chester L., Trenton
Clark, Harold B., Kansas City
Clark, Irving H., Hickman Mills
Clark, James F., St. Louis
Clark, Kendall A., Jefferson City
Clarke, Michael J., Springfield
Clary, William F., Springfield
Clasen, Arthur C., Kansas City
Clawson, James W., Springfield
Clay, Calvin, St. Charles
Clay, Hampson S., Poplar Bluff
Clayton, Edgar L., Springfield
Cleary, Frank, St. Louis
Cleveland, Horace F., Long Beach, California
(Member St. Louis Medical Society)
Cline, Edward W., Poplar Bluff
Cline, Harold H., Piedmont
Cline, Merle A., Kansas City
Clinger, John M., Jr., Kansas City
Clithero, W. H., St. Louis
Cloyd, Mason D., St. Louis
Coates, Thomas A., St. Louis
Coburn, Donald F., Kansas City
Cochran, Jo R., Cape Girardeau
Cochran, Thomas E., Jr., Kansas City
Cochrane, Joseph J., Kansas City
Cockerell, Sanford F., Independence
Coffelt, Kenneth C., Springfield
Coffey, Ralph R., Kansas City
Coffin, Ernest L., Portage, Maine
(Member St. Louis Medical Society)
Coffin, Theodore A., Kansas City
Coffman, Esther E. L., St. Louis
Cohen, Frank, St. Ann
Cohen, Benjamin H., St. Louis
Cohen, Harry K., Kansas City
Cohen, Hilliard, Kansas City
Cohen, Louis, St. Louis
Cohle, Richard R., Carthage
Cohnberg, Rosellen E., Monett
Cohrs, Clarence C., Moberly
Coil, Paul E., Mexico
Colbert, James W., Jr., St. Louis
Coldwater, Kenneth B., St. Louis
Coleman, William G., St. Louis
Colgate, Cleon E., Amarillo, Texas
(Member St. Louis County)
Colglazier, Mary Catherine, Kansas City
Coller, Frederick C., Springfield
Collins, Gretchen D., Macon
Collins, Joe Ed, Joplin
Collins, John M., St. Louis
Collodi, George A., Brentwood
Colom, George A., Kansas City
Comboy, Lawrence J., Independence
Comeau, Richard, Dexter
Comens, Ruth C., St. Louis
Commerford, James J., Crystal City
Compton, James R., Kirkwood
Cone, Alfred J., Chesterfield
Connell, Evan S., Kansas City
Connor, John J., St. Louis
Connor, Samuel W., Mountain Grove
Conover, Charles C., Kansas City
Conrad, Adolph H., St. Louis
Conrad, Adolph H., Jr., St. Louis
Conrad, Joseph A., Chillicothe
Conrad, Marshall B., St. Louis
Conrad, Raymond C., Springfield
Conrad, Robert W., St. Joseph
Cook, Jerome E., St. Louis
Cook, Norman L., Cape Girardeau
Cook, O. W., Caruthersville
Cook, Ralph L., University City
Cook, Thomas B., Richmond
Cooke, Francis W., Caruthersville
Cooper, Claude W., Thayer
Cooper, Henry T., St. Louis
Cooper, John H., Kansas City
Cooper, John M., Butler
Cooper, Lawrence E., Fort Myers, Florida
(Member Pemiscot County)
Cooper, Leo F., Kansas City
Cooper, Maurice E., Columbia
Cooper, R. Lee, Warrensburg
Cooper, Thomas J., St. Louis
Cope, James C., Columbia
Cope, Joseph S., Lexington
Copher, Glover H., St. Louis
Cordonnier, Justin, St. Louis
Cornell, John C., St. Louis
Correnti, Nicholas A., St. Louis
Cortner, Mary C., Kansas City
Cossins, Carlos E., St. Joseph
Costa, Dominic V., St. Louis
Costello, Cyril J., St. Louis
Costello, Joseph P., St. Louis
Costello, Joseph P., Jr., St. Louis
Costen, James B., St. Louis
Costrino, John J., University City
Costrino, Joseph A., St. Louis
Cottrell, Wilson P., Reeds Spring
Coughlin, Bertrand D., St. Louis
Coulter, Robert L., Jr., St. Louis
Counsell, Chester M., Kansas City
Cowan, R. D., Aurora
Cowdry, Edmund V., Jr., St. Louis
Cowherd, Joseph B., Kansas City
Cox, Kenneth E., Kansas City
Cox, Mary E., St. Louis
Cox, William A., Jefferson City
Cox, William L., Liberty
Craig, Irwin T., Joplin
Craig, Owen W. D., St. Joseph
Cramb, Arthur B., Lakeland, Florida
(Member North Central Counties)
Cramer, Quentin, Kansas City
Crawford, Archie L., Joplin
Crawford, Katherine J., St. Louis
Crawford, Oral B., Springfield
Crawford, Robert M., Sullivan
Creech, Joseph C., Troy
Crego, Clarence H., Jr., St. Louis
Cremer, William J., Fulton
Cresswell, George F., Potosi
Crews, Robert N., Fulton
Crider, Russell J., St. Charles
Crispell, Lawrence S., Joplin
Critchlow, William C., Sikeston
Crites, Edward, Sedgewickville
Croom, Dorwyn W., Malden
Crosby, Alice S., Salem
Crossen, Robert J., St. Louis
Crossman, Robert W., Webster Groves
Crouch, F. Richard, Farmington
Crowe, John T., Cape Girardeau
Crowell, Hugh C., St. Louis
Crozier, Franklin A., Richmond
Culbertson, William F., Kansas City
Culkin, Thomas R., St. Louis
Cullers, Chas. H., Trenton
Cullum, Albert G. J., Cumberland, Ky.
(Member St. Louis County)
Cummings, James H., St. Louis
Cummins, Walter F., Kansas City
Cunningham, Darral D., Springfield
Cunningham, Eric A., Louisiana
Cunningham, James R., Ventura, California
(Member St. Louis Medical Society)
Curl, Howard, Joplin
Curran, Edward J., Kansas City
Curran, Kevin E., Kansas City
Curran, Maurice D., Kansas City
Cutcliff, Daniel J., Kansas City
Cutler, Harold M., St. Louis
Cutler, Harry, St. Louis
Czebrinski, Edward W., St. Louis

D

Daake, John W., St. Louis
Dahms, Gustave, St. Louis
Daley, Frank R., Hamilton
Dalton, Arthur R., St. Louis
Daman, George A., St. Louis
Dames, Richard J., St. Louis
Damron, E. O., Elsberry
Damron, Oscar H., Warrensburg
Danis, Peter G., St. Louis
Dankner, Arnold, St. Louis
Dann, David S., Kansas City
Darnell, Thomas F. B., Columbia
Darrow, Robert S., Kansas City
Daughaday, William H., St. Louis
Davault, George K., Richmond
Davidson, Morris, Clayton
Davie, Joseph, St. Louis
Davis, C. B., Nevada
Davis, Clarence D., Columbia
Davis, Edgar W., St. Louis
Davis, Frank L., St. Louis
Davis, Harry H., Rolla
Davis, Herbert V., Kansas City
Davis, Irl R., St. Louis
Davis, Jack M., Raytown
Davis, John J., Kansas City
Davis, Kenneth A., Kansas City
Davis, Landis Y., Canton
Davis, Leonard L., Jr., Mexico
Davis, Martin V., Webster Groves
Davis, Myron W., St. Louis
Davis, Paul C., Neosho
Davis, Richard F., Kansas City
Davis, Robert C., Kansas City
Davis, Wilbur L., Charleston
Dawson, Orville L., Iowa City, Iowa
(Member of Buchanan County)
Day, Anthony B., St. Louis
Day, Cameron B., Kansas City
Deakin, Rogers, St. Louis
Dean, Francis D., Fayette
Dean, Lee W., Jr., Clayton
Decker, Albert I., Kansas City
DeGenova, G. H., Ste. Genevieve
DeHovitz, Bernard, St. Louis
Deitchman, Robert B., St. Louis
de la Torre, John J., Sullivan
Delzell, William A., Springfield
DeMaria, Peter F., Kansas City
Demko, Frank, St. Louis
Demko, William, Sappington
DeMott, John D., Kansas City
DeMotte, John A., Kansas City
Dempsey, D. T., Kennett
Denney, Richard W., Mountain Grove
Dennie, Charles C., Kansas City
Denny, H. M., Union
Denton, Levi D., Hayti
DePew, Heber B., St. Louis
Dernoncourt, John E., Charleston
DeTar, Burleigh E., Joplin
DeTar, B. E., Jr., Joplin
Deutch, Max, St. Louis
Devine, John B., St. Louis
Devine, Joyce E., St. Louis
Deweese, Everett R., Kansas City
Dewey, K. Ziegler, Kansas City
Deyton, John W., St. Louis
Dickson, Frank D., Kansas City
Dieckman, William C., Dexter
Diehr, Alvin H., St. Louis
Diehr, Maurice A., St. Louis
Diekroeger, Manuel L., Boonville
Dietrich, Karl D., Columbia
Dietz, M. Wendell, Springfield
DiLeo, Senatro W., St. Louis
Dill, Foster A., Maplewood
Dillard, Erin M., Springfield
Dills, Joseph N., Springfield
Dimond, Edgar A., Springfield
Dinelli, Frank E., Poplar Bluff
Diveley, Rexford L., Kansas City
Dixon, C. Harold, Fulton
Dixon, John R., Brookfield
Dixon, Otto J., Kansas City
Dixon, Vewiser L., Kansas City
Dlabal, Luke J., Independence
Dmytryk, Eugene T., St. Louis
Doan, Deborah, Bakersfield
Doane, William L., Grandview
Dodge, Mark, Kansas City
Dodge, Milton, Kansas City
Doggett, Sylvester, Cape Girardeau
Doisy, Robert A., Kirkwood
Domke, Herbert R., Clayton
Donahoe, James L., Fort Benning, Ga.
(Member St. Louis Medical Society)
Donaldson, Robert C., St. Louis
Donley, Leo F., Jr., Ferguson
Donley, Robert R., Monett
Donnell, Harold E., DeSoto
Donnell, Robert H., Crystal City
Donnell, Thomas A., DeSoto
Dorris, Richard P., Jefferson City
Dorsch, Ervin H., Independence
Dorsett, E. Lee, University City
Doubek, John C., St. Louis
Doubek, John C., Jr., Kirkwood
Doubek, William G., St. Louis
Douglas, John W., Joplin
Douglass, Daniel D., Kansas City
Douglass, Jesse E., Kansas City
Dowd, James F., Jr., St. Louis
Dowell, Donald M., Chillicothe
Dowell, Horace S., Chillicothe
Downey, James W., Kansas City
Doyle, Charles R., St. Louis
Drace, Charles C., St. Louis
Drace, Charles C., Jr., St. Louis
Drace, James J., Cape Girardeau
Drake, Avery A., Rolla
Drake, Roy F., Kansas City
Drake, Truman G., St. Louis
Drake, William L., Jr., St. Louis
Draney, Thomas E., Kansas City
Drescher, Emmett R., St. Louis
Drews, Leslie C., St. Louis
Drey, Norman W., St. Louis
Dreyer, Carl J., Webster Groves
Dreyer, Philip V., Huntsville
Dripps, Roy C., St. Louis
Drisko, Robert M., Kansas City
Drowns, Bruce V., Kansas City
Drum, Clarence G., St. Louis
Drum, Helen M. Aff, Clayton
Duckett, Claude E., Lamar

Duckworth, Gordon L., Jr., Hayti
Duden, Charles W., St. Louis
Duemler, John H., St. Louis
Duer, Mildred C., Kansas City
Duffy, Edgar A., Trenton
Duffy, Oliver F., Trenton
Duggan, John J., Jr., Brentwood
Dulick, Michael, Brentwood
DuMont, Clement C., St. Joseph
Dunaway, Howard A., Sikeston
Duncan, Ralph E., Kansas City
Duncan, Robert D., Springfield
Duncan, William H., Kansas City
Dunham, R. H., North Kansas City
Dunham, Richard B., St. Louis
Dunmire, George Q., Kennett
Dunshee, Robert E., Maryville
Durham, Silas L., Dearborn
Durst, Henry, Fulton
Dworkin, Saul, St. Louis
Dwyer, Frank X., Kansas City
Dwyer, Hugh L., Kansas City
Dwyer, Reinhardt D., North Kansas City
Dwyer, Thomas L., Mexico
Dye, Harold B., Kansas City
Dyer, Dallas J., St. Louis
Dyer, David P., Sedalia

E

Eades, Dee W., St. Louis
Eagleton, Mark D., St. Louis
Earp, Ralph K., St. Louis
Ebel, Eugene H., St. Louis
Eber, Carl T., St. Louis
Eberle, John P., St. Louis
Eberle, Vincent L., New York, N. Y.
(Member St. Louis Medical Society)
Echterhoff, Harry R., St. Louis
Eck, Birkle, St. Louis
Ecker, Decider, Pacific
Eckert, Clarence T., St. Louis
Ecklund, Archibald M., Norfolk, Va.
(Member St. Louis Medical Society)
Ector, Henry J., Mexico
Edde, Clifford G., Kansas City
Edele, Eugene H., St. Louis
Edmonds, Devilla D., Kansas City
Edmondson, Charles T., Malden
Edmondson, Paul J., Columbia
Edwards, D. R., Sedalia
Edwards, Francis L., Monett
Edwards, Joseph C., St. Louis
Edwards, T. Burton, Cedar Hill
Edwards, Theodore F., North Kansas City
Edwards, Waldo B., Kirkwood
Efron, Joseph, Belleville, Ill.
(Member St. Louis Medical Society)
Eggleston, D. E., Macon
Egley, Loren E., Kirkwood
Eidelman, Jack R., St. Louis
Eidmann, Walter P., St. Louis
Eigel, Edwin G., St. Louis
Eimer, Charles E., St. Louis
Eisemann, Gustave, Kansas City
Eisenmann, Benjamin P., New Haven
Eisenstein, Albert B., St. Louis
Eklund, Alfred W., Pleasant Hill
Elders, Frank A., Jr., Cuba
Eldridge, Charles J., Kansas City
Elias, David J., Independence
Eliscu, Juliette, Joplin
Elkins, Ronald F., Springfield
Eller, Byron H., Bangkok, Thailand
(Member Ozarks Medical Society)
Ellersieck, Dorothy M., St. Louis
Ellery, William L., LaGrange
Ellett, William H., Appleton City
Elliott, Gladden V., St. Louis
Elliott, James R., Kansas City
Elliott, John R., St. Joseph
Elliott, Raymond G., Mission, Kansas
(Member Jackson County)
Ellis, Burnett E., Gideon
Ellis, Calvin C., St. Louis
Ellis, Coburn H., Garden City
Ellis, Francis J., Springfield
Ellis, Sam T., Hannibal
Ellison, Leroy E., Maplewood
Ellsworth, Willard, Cainsville
Elrod, Dennis B., Cape Girardeau
Elser, Otto H., Independence
Elson, Julius, Ladue
Emerson, Reynolds L., Brentwood
Emmert, Fred, St. Louis
Engel, Lawrence P., Kansas City
Engelhardt, Robert C., Poplar Bluff
Engleman, Reinhold, St. Louis
English, Milton T., Jr., Kirksville
English, Wallace D., Cardwell
Engman, Martin F., Jr., St. Louis
Enloe, Lawrence D., Jefferson City
Enna, Carl D., Kansas City
Epp, George J., St. Louis
Epple, Kathryn C., Mexico
Epple, Lawrence K., Mexico
Epps, Curtis, Springfield
Erlanger, Herman, St. Louis
Erlanger, Joseph, St. Louis
Ernst, Edwin C., St. Louis
Ernst, Edwin C., Jr., St. Louis
Ernst, Roland P., St. Louis
Eshelman, Albert D., Independence
Eskeles, Irwin H., St. Louis
Esker, George, St. Louis
Esslinger, Arthur T., St. Louis
Estes, Albert M., Cape Girardeau
Etheredge, Maude Lee, San Francisco, Calif.
(Member Boone County)
Eto, Jackson, St. Louis
Eubank, David F., Raytown
Eubank, Dillard M., Raytown
Eubank, William R., Kansas City
Evans, Albert L., Bonne Terre
Evans, Alden M., Columbia
Evans, Ezra L., Jr., Springfield
Evans, Harry T., Branson
Eversoll, Norton J., St. Louis
Ewert, J. O., Sedalia
Exon, C. Stuart, Jefferson City
Eyermann, Chas. H., St. Louis
Eyermann, H. Walter, Warrenton
Ezzo, Joseph A., St. Louis

F

Fair, William L., Chillicothe
Fairchild, James F., Perryville
Falk, Oswald P. J., St. Louis
Fallet, Charles E., DeSoto
Farley, Claude C., Kansas City
Farley, William M., St. Louis
Farney, Jacob P., Kansas City
Farnsworth, Jesse J., Kansas City
Farrar, C. B., Flat River
Farrar, John T., Boston, Mass.
(Member St. Louis Medical Society)
Farrell, Robert J., St. Louis
Farris, William W., St. Louis
Farthing, Fred R., Springfield
Fehlman, Bernard F., Jr., St. Louis
Feierabend, Frank L., Kansas City
Feind, Earl E., Rolla
Feinstein, Leon A., St. Louis
Feist, George V., Kansas City
Feldaker, Mauri, St. Louis
Feldmann, David, St. Louis
Feller, C. E., Springfield
Feller, Harold H., St. Louis
Fellhauer, Carl M., St. Louis
Fellows, William W., Washington, D. C.
(Member Chariton-Macon-Monroe-Randolph Counties)
Feltz, L. W., Perryville
Ferguson, Donald S., San Francisco, Calif.
(Member Jackson County)
Ferguson, Eugene H., Kansas City
Ferguson, James T., Kansas City
Ferguson, John P., Jr., Springfield
Ferguson, L. H., Jr., Joplin
Ferguson, Luther J., St. Joseph
Ferguson, Ralph L., Joplin
Ferguson, Robert M., Webb City
Ferguson, Thomas B., St. Louis
Ferguson, Wilson J., Sikeston
Ferrara, John P., St. Louis
Ferrell, Thomas E., Jr., Springfield
Ferris, Carl R., Kansas City
Fessenden, Ersel M., Springfield
Field, Lawrence M., Kansas City
Findley, James W., Kansas City
Fineberg, Maxwell, St. Louis
Fingerhood, Marvin G., St. Louis
Fingert, H. H., St. Louis
Finkel, Barney W., St. Louis
Finkle, Robert H., Independence
Finley, Freeman L., Overland
Finnegan, Frank R., St. Louis
Finnegan, Joseph V., St. Louis
Finney, William O., Chaffee
Fischer, Edward H., North Kansas City
Fischer, Erich, St. Louis
Fischer, Harry W., St. Louis
Fischer, Theodore, Altenburg
Fish, Virgil O., St. Louis
Fisher, George E., Lebanon
Fisher, Harry E., Jr., Salt Lake City, Utah
(Member St. Louis Medical Society)
Fisher, Joseph L., St. Joseph
Fisher, Stanley D., Sedalia
Fitch, C. H. Max, Springfield
FitzGerald, Leo P., University City
Fitzgerald, Robert H., Independence
Fitzgerald, William T., St. Louis
Flance, Israel J., St. Louis
Flanders, Horace F., Kansas City
Flatley, John A., Raytown
Flaven, David B., St. Louis
Fleishman, Alfred, St. Louis
Fleming, Jacob W., Jr., Moberly
Fleming, Paul D., Clayton
Fleming, Robert J., St. Charles
Fleming, Royall B., Kansas City
Fleming, Thomas S., Moberly
Fletcher, Paul F., St. Louis
Fletes, James W., Normandy
Flotte, Bernard H., St. Louis
Flotte, Sylvester A., St. Louis
Flynn, Edward P., St. Louis
Flynn, John T., St. Louis
Flynn, Joseph E., Columbia
Flynn, Joseph E., St. Louis
Focht, Ralph H., Strafford
Fogel, Isadore B., Kansas City
Folck, William P., Norfolk, Va.
(Member Jackson County)
Ford, Lee T., Jr., St. Louis
Ford, Walter W., Gordonville
Forgrave, John R., St. Joseph
Forgrave, Leon P., St. Joseph
Forman, George W., St. Joseph
Forman, Louis H., Kansas City
Forsen, James A., St. Louis
Forsman, Waldo W., Jr., Sappington
Forster, Armand C., St. Louis
Forsyth, B. Todd, St. Louis
Forsythe, Robert W., Kansas City
Forti, John J., St. Louis
Foster, Howard M., St. Louis
Foster, Jack L., Desloge
Foster, Leon, St. Louis
Foster, Robert L., St. Louis
Fowler, Charles I., North Kansas City
Fowler, James W., Kansas City
Fowler, Marvin L., West Plains
Fox, Leon J., St. Louis
Fox, Robert E., St. Louis
Frame, Homer G., Springfield
Francis, William C., Springfield
Francka, Wenceslaus F., Hannibal
Frank, Adolph M., St. Louis
Frankl, George, Kansas City
Franklin, Harold A., St. Louis
Franklin, Max S., St. Louis
Frantz, Mary W. H., Columbia
Fredeen, Robert C., Kansas City
Freedman, Harold, St. Louis
Freedman, Ruth S., St. Louis
Freeman, David M., St. Louis
Freeman, Hal E., Springfield
Freeman, Spencer L., Kirksville
Freiermuth, Leo J., Jr., St. Louis
Freiheit, Harold J., Ladue
Freimuth, L. E., St. Louis
Frerking, Herbert W., St. Louis
Freund, H. G., Fulton
Freund, Newton M., St. Louis
Freund, Samuel J., St. Louis
Frick, John P., Kansas City
Friedman, Bernard, Koch
Friedman, Morris L., Kansas City
Fries, Armand D., St. Louis
Fries, John W., Webster Groves
Fries, William A., St. Louis
Frisch, Jane B., St. Louis
Friskel, Arthur K., St. Louis
Fritschel, Godfrey C., St. Louis
Fritzlen, Thomas J., Kansas City
Froelich, Edwin J., St. Louis
Froelich, Rae W., Lebanon
Froelich, Robert E., St. Charles
Fryer, Minot P., St. Louis
Fuchs, George J., Overland
Fuerth, A. L., Cape Girardeau
Fuhrman, Donald L., Kansas City
Fulbright, James H., Springfield
Fulkerson, Wilbur E., Higginsville
Fulks, Richard B., California
Funsch, Edwin C., St. Louis
Funsch, Robert E., University City
Furla, Gus J., St. Louis
Furlow, Leonard T., St. Louis
Fuson, Levi H., St. Joseph
Fuson, William A., Trenton
Fuzzell, Jameso, Kennett

G

Gaebe, Harold C., Desloge

Gafney, George T., St. Louis
Gaines, Quentin M., Kirkwood
Gainey, Harold L., Kansas City
Gale, Joseph F., Chillicothe
Gale, Phillip R., St. Louis
Gallagher, John F., St. Louis
Gallagher, Lionel M., California
Gallagher, William J., St. Louis
Ganley, William C., Kansas City
Gansloser, Maximilian W., St. Louis
Gansloser, Wilbert M., Clayton
Gantt, Ernest S., Jr., Mexico
Garcia, Charles L., Mexico
Gard, Raymond F., Independence
Gardiner, David G., St. Louis
Gardner, Joseph W., Glasgow
Garfinkel, Bernard T., St. Louis
Garner, Lynn M., Jefferson City
Garrett, Glenn H., Columbia
Garrison, Roy F., Kansas City
Gary, George, Marceline
Gaskins, John H., Kansas City
Gaston, Ralph E., Richmond Heights
Gauer, Robert J., Kansas City
Gaunt, Frank P., Webster Groves
Gay, Elmer E., Richmond
Gay, George, Ironton
Gay, Lee P., Jefferson City
Gearhart, M., Bethany
Gebert, Clara M., Valley Park
Gempel, Paul A., Kansas City
Gentry, Enoch N., Jr., Kansas City
Gentry, Marvin C., Ava
Gentry, Merritt L., Springfield
Geraughty, Edward, Kansas City
German, Walter A., Jr., Springfield
Gernstetter, Sangwill L., Poplar Bluff
Gerst, Aloysius C., St. Louis
Gerwig, H. Eugene, Downing
Gestring, Hugh A., Kansas City
Getelson, Joseph, Kansas City
Gibbons, Edward H., St. Louis
Gibson, David M., Kansas City
Gibson, Helen F., St. Louis
Gibstine, Marvin H., St. Ann
Giem, Ross Nye, Rolla
Gieselman, Ralph V., St. Louis
Giesler, Donald H., Osceola
Gildea, Edwin F., St. Louis
Gildea, Margaret C. L., St. Louis
Gilkey, Harry M., Kansas City
Gillespie, William J., Richmond Heights
Gilliland, Oliver S., Kansas City
Gillmor, Charles S., Kansas City
Ginsberg, Norman A., Kansas City
Gish, Rutledge, Fulton
Gissy, Charles J., St. Louis
Gist, William W., Kansas City
Gitt, Joseph J., St. Louis
Gladney, John H., St. Louis
Glaser, Martin J., St. Louis
Glaser, Robert J., St. Louis
Glassberg, Bertrand Y., St. Louis
Glasscock, Ernest L., Kansas City
Glenn, Elmer E., Forsyth
Glennon, William P., St. Louis
Glick, Harry N., St. Louis
Glover, Kenneth, Mount Vernon
Gloyne, Howard F., Kansas City
Glynn, Robert R., Springfield
Gnade, Albert J., St. Louis
Goebel, Joan M., St. Louis
Goldberg, Isadore E., Braymer
Goldenberg, Sidney, St. Louis
Goldenson, Max J., St. Louis
Goldfarb, Alvin, Olivette
Goldman, Alfred, St. Louis
Goldman, Hyman J., St. Louis
Goldman, Melvin L., St. Louis
Goldman, Stanley L., Kansas City
Goldring, Sidney, St. Louis
Gollub, Samuel W., St. Louis
Gonser, Karl B., Sedalia
Good, James T., Springfield
Goodman, J. N., Glendale
Goodman, LeRoy, Kansas City
Goodman, Nathaniel, St. Louis
Goodrich, Harold A., Webster Groves
Goodrich, Howard B., Winter Park, Fla. (Member Marion-Ralls-Shelby Counties)
Goodson, William H., Liberty
Goodson, William H., Jr., Kansas City
Gorelick, David F., Springfield
Gorla, Wayne O., St. Louis
Gose, Don F., Springfield
Gowen, Leo F., St. Louis
Grabau, Gene H., St. Louis
Grabske, Charles F., Independence
Grabske, Charles F., Jr., Independence
Grace, Charles M., Chillicothe
Gradwohl, Rutherford B. H., St. Louis
Graeser, Richard G., Kirkwood
Graham, David T., St. Louis
Graham, James W., Kansas City
Graham, Wallace H., Kansas City
Graneto, Joseph A., St. Louis
Grant, Claude S., St. Joseph
Grant, Murray, Liberty
Grant, Samuel B., St. Louis
Grantham, Samuel A., Jr., Joplin
Grauerholz, James W., Kansas City
Graul, Elmer G., St. Louis
Graul, Walter P., St. Louis
Graves, Arthur J., Mount Vernon
Graves, F. Burton, Joplin
Gray, Walter C., St. Louis
Grayson, Richard R., Perryville
Greaves, Eli A., Kansas City
Grebel, Clement B., St. Louis
Greditzer, Arthur S., St. Louis
Green, Daniel, St. Louis
Green, Jess D., Jr., Bartlesville, Okla. (Member Jackson County)
Green, John R., Independence
Green, John R., Independence
Green, Manuel E., St. Louis
Green, Robert S., Kennett
Green, Stanley L., Independence
Greenberg, Charles, St. Joseph
Greene, Harry L., Hannibal
Greene, Luther D., Richmond
Greene, Maurice L., McAllen, Texas (Member Lincoln-St. Charles County)
Greene, W. Wallace, Kansas City
Greenman, Marshall B., St. Louis
Greiner, Theodore, St. Louis
Griffin, Mary E. P., Buffalo
Griffin, Olin A., Jr., Buffalo
Griffith, Harry M., Richmond
Griffith, John A., Jr., Kansas City
Griggs, James Y., Benld, Ill. (Member St. Louis Medical Society)
Grimes, M. E., St. Joseph
Grindon, Joseph B., Jr., St. Louis
Griot, Albert J., St. Louis
Grogan, Frank M., St. Louis
Gronau, Axel R., St. Louis
Gross, Joseph L., St. Louis
Grosskreutz, Joseph A., St. James
Grossman, Marvin, Fredericktown
Grove, G. W., Knob Noster
Growdon, John A., Kansas City
Grueb, Paul M., St. Louis
Gruenfeld, Gerhard E., St. Louis
Grundman, William H., St. Louis
Grybinas, Vytautas J., St. Louis
Guccione, Joseph B., St. Louis
Guffey, Don C., Kansas City
Guhleman, Henry V., Jr., Jefferson City
Guldner, Edmond, Lamar
Gulick, Charles R., Webster Groves
Gum, William R., St. Louis
Gummels, Belmont B., St. Louis
Gundlach, Arthur, St. Louis
Gundle, Sigmund, Kansas City
Gunn, Aubrey J., Versailles
Gunn, Jack, Versailles
Gunn, Richard W., Kansas City
Gunn, Walter T., St. Louis
Gurnee, Landon H., Jefferson City
Guze, Samuel B., St. Louis
Gzell, Ronald, St. Louis

H

Hackmeyer, Rubin, St. Louis
Haddock, James N., Webster Groves
Haffner, Heinz, St. Louis
Hagan, Daniel J., St. Louis
Hagebusch, Omer E., St. Louis
Hagemann, Paul O., St. Louis
Hager, Victor K., St. Louis
Haggen, Margaret, Kansas City
Hahn, Andrew L., Springfield
Haight, John M., Kansas City
Hale, Ralph, Kansas City
Hale, Tyre H., St. Louis
Hall, Andy, Jr., St. Louis
Hall, David W., Springfield
Hall, Durward G., Springfield
Hall, Eugene W., Ferguson
Hall, Frank W., Cape Girardeau
Hall, James R., Kansas City
Hall, John, Ashland
Hall, Lee, St. Louis
Hall, Marvin F., Joplin
Hall, Preston C., St. Louis
Hall, Robert A., St. Louis
Hall, Robert G., Address Unknown (Member Callaway County)
Hall, Thomas B., Kansas City
Hallberg, John W., Kansas City
Halperin, Phillip H., Kansas City
Halpern, Lawrence K., St. Louis
Hamel, Herbert A., Kansas City
Hamill, Robert W., Kansas City
Hamilton, Caldwell K., St. Louis
Hamilton, Eugene G., St. Louis
Hamilton, Eugene H., Joplin
Hamilton, Hugh G., Kansas City
Hamilton, William P., St. Louis
Hamlin, Wyeth, Palmyra
Hammler, Christiana V., St. James
Hammond, John J., St. Louis
Hampton, Oscar P., Jr., St. Louis
Hampton, Stanley F., St. Louis
Hamtil, Edward W., St. Louis
Hanan, Ernest B., Springfield
Handler, Eric, St. Joseph
Handler, Fred P., St. Louis
Handley, James M., Kansas City
Hanes, Lee D., Kansas City
Hanes, Robert L., Kansas City
Hanford, Wesley W., St. Louis
Hankin, Norman M., St. Louis
Hanlon, C. Rollins, St. Louis
Hanlon, Thomas J., Muskogee, Okla. (Member St. Louis County)
Hanna, Richard E., St. Louis
Hans, Willard J., St. Louis
Hansel, French K., St. Louis
Hansen, Arthur L., Butler
Hanser, Otto C., St. Louis
Hanser, S. Albert, St. Louis
Hanser, Theodore H., St. Louis
Hanss, Armand W., Springfield
Hardacre, Ruth A., Kansas City
Hardesty, Joel W., Hannibal
Hardwicke, Henry, Ashland
Hardy, Guerdan, Clayton
Hardy, John W., Sumner
Hardy, Joseph A., Jr., St. Louis
Harell, Alex, St. Louis
Harford, Carl G., St. Louis
Harkin, James C., St. Louis
Harkins, William B., St. Louis
Harkness, Harry, Warrensburg
Harland, R. E., Ironton
Harless, Morris S., Kansas City
Harmann, Martin F., St. Louis
Harms, Florian L., Salisbury
Harned, Bert W., Overland Park, Kansas (Member Jackson County)
Harner, Casper G., St. Joseph
Harper, Fleming B., St. Louis
Harrell, Henry J., Morrisville
Harrington, William J., St. Louis
Harris, Charles W., St. Louis
Harris, Hinman A., University City
Harris, Irwin J., St. Louis
Harris, Solon P., St. Louis
Harrison, John F., Mexico
Harrison, Lee B., St. Louis
Harrison, Stanley L., St. Louis
Hart, Lawrence W., Kansas City
Hart, Martin M., Salem
Hart, Pearl V., Coatsville
Harting, Hugh R., St. Louis
Hartman, Howard E., St. Louis
Hartman, Paul T., St. Louis
Hartmann, Alexis F., St. Louis
Hartnett, Dalton C., Ft. Worth, Texas (Member St. Louis Medical Society)
Hartnett, Leo J., St. Louis
Hartstein, Jack, St. Louis
Hartwell, Basil O., Drexel
Hartwig, Frederick H., Kansas City
Hartwig, John A., St. Louis
Harwell, James L., Poplar Bluff
Harwell, J. Lester, Poplar Bluff
Hashinger, Edward H., Kansas City
Haskell, Ralph E., Norborne
Hassett, Henry A., St. Louis
Hasson, Robert, Moberly
Hata, Daikichi, Boonville
Hatcher, Dock T., Jr., Pensacola, Fla. (Member Grand River Medical Society)
Haw, Marvin T., Jr., Bonne Terre
Hawk, Bray O., St. Louis
Hawker, William D., St. Louis
Hawkins, George L., Jr., St. Louis
Hawkins, George W., Salisbury
Hawkins, Lee W., Glendale
Hayden, Loyola F., St. Louis
Hayek, Wesley E., St. Louis
Haynes, James W., St. Louis
Haynes, Lee, Kansas City
Haynes, Pugh, Jr., St. Louis
Haynes, Robert C., Marshall
Haynes, Robert C., Jr., Cleveland, Ohio (Member Saline County)
Haynes, Solon E., Kansas City

Hazen, Robert M., Kansas City
H'Doubler, Francis T., Springfield
H'Doubler, Francis T., Jr., Springfield
Hearst, Allen L., Kansas City
Heid, Lloyd L., St. Louis
Heideman, Alvah G., St. Louis
Heideman, Milo L., St. Louis
Heifetz, Carl J., St. Louis
Heilbrunn, Max, Lockwood
Heimburger, Leroy F., Springfield
Heinbecker, Peter, St. Louis
Helbing, Edward J., St. Louis
Helbing, Harry H., St. Louis
Heller, B. Marcus, Kansas City
Hellerstein, Stanley, Kansas City
Hellweg, Charles E., Mount Vernon
Helm, James O., New Florence
Helman, Richard G., Kansas City
Henderlite, John W., St. Louis
Hendin, Aaron, University City
Hendren, Glenn W., Liberty
Hengen, Henry E., Pattonville
Henke, Charles F., St. Louis
Hennelly, John J., St. Louis
Henrickson, H. O., Poplar Bluff
Henrickson, Hardin M., Poplar Bluff
Henrickson, William E., Poplar Bluff
Henry, Clarke L., Kansas City
Henry, Clifford E., Kirksville
Henry, Schubert D., Kansas City
Henschel, Eugene V., St. Louis
Hensley, Daniel R., Wardell
Hepner, Walter R., Jr., Columbia
Herbert, Charles T., Cape Girardeau
Herbst, Frank, Kansas City
Herman, Allen I., St. Joseph
Herman, Morris, St. Louis
Herrick, Harold C., La Grange
Herrman, George V., Kansas City
Hershey, Falls B., University City
Hertel, Albert L., St. Louis
Hess, A. Michael, St. Louis
Hess, Paul D., Kansas City
Hetlage, Louis P., Troy
Heusler, Anton F., St. Louis
Hewitt, John H., Excelsior Springs
Hewitt, Walter R., St. Louis
Heyer, Oscar C., St. Louis
Hibbard, Blaine Z., Kansas City
Hickerson, John C., Independence
Hickerson, William H., Independence
Hickey, Robert F., St. Louis
Hicks, Edward A., Troy
Higgins, Robert S., Kansas City
Hildreth, H. Rommel, St. Louis
Hill, Jack H., Kansas City
Hill, James E., Fulton
Hill, Jesse N., Independence
Hill, John J., San Francisco, California
(Member West Central Counties)
Hines, Arthur A., St. Louis
Hines, Paul, Kansas City
Hink, Frederick W., Kansas City
Hirsch, Albert, Middletown
Hirschboeck, Elizabeth J., Kansas City
Hite, Henry A., Green Ridge
Hixon, Walter S., Ferguson
Hobart, Carl A., St. Louis
Hobbs, Alonzo G., St. Louis
Hobbs, Earl B., Smithville
Hobbs, George H., Fulton
Hobbs, John E., St. Louis
Hoctor, Emmett F., Farmington
Hodge, Robert H., North Kansas City
Hodgson, Frank H., Kansas City
Hoefer, Walter H. V., St. Louis
Hoelscher, Harold F., Warrenton
Hoeper, Samuel D., Kansas City
Hoercheler, T. J., Shelbina
Hoffman, Jacob S., Kansas City
Hoffmann, Augustin D., St. Louis
Hoffmann, R. Lee, Kansas City
Hofsommer, Armin C., Webster Groves
Hofstatter, Leopold, St. Louis
Hofstatter, Lilli, St. Louis
Hogan, Daniel F., Kansas City
Hogan, Frank E., Mound City
Hogeboom, George W., Springfield
Hogg, Garrett S., Jr., Cabool
Hogue, Frank S., Kansas City
Holbrook, Charles K., St. Louis
Holden, Raymond F., Jr., Wichita, Kansas
(Member St. Louis County)
Holdenried, William E., St. Louis
Holliday, Morgan L., Fillmore
Hollingsworth, Ray S., Clinton
Hollo, Vencel W., St. Louis
Hollweg, Kenneth C., Kansas City
Holman, Jurney H., Unionville
Holmes, David R., Warrensburg
Holmes, Lemuel I., Miller
Holscher, Edward C., St. Louis
Holt, Earl P., Jr., St. Louis
Holt, Waldo S., Kansas City
Holton, Edward B., Independence
Holtzman, Samuel, Joplin
Homan, J. S., St. Louis
Honich, Nicholas J., St. Louis
Hook, Waller G., Kansas City
Hooker, John H., Clarksville
Hoover, H. Lee, Jr., Springfield
Hope, James L., Lebanon
Hopkins, F. G., Gideon
Hopkins, Thomas J., Sedalia
Hopkins, Thomas S., Washington, D. C.
(Member West Central Counties)
Hopson, George, DeSoto
Hornback, Edward R., Joplin
Hornback, George A., Hannibal
Horner, John L., St. Louis
Horseman, Robert F., Kansas City
Horst, Otto C., Springfield
Horton, James D., Springfield
Horton, Ray B., North Kansas City
Horwitz, Irwin B., St. Louis
Hosto, Leland E., St. Louis
Houck, Russell M., Kecoughtan, Va.
(Member Clay County)
Houston, Vincent T., St. Louis
Howard, Everette E., Kansas City
Howard, Walter M., Joplin
Howden, Thomas L., St. Joseph
Howe, Louis F., St. Louis
Howell, B. D., Brookfield
Hoxie, George H., Berkeley, Calif.
(Member Jackson County)
Hoxworth, Gerald M., Cape Girardeau
Hrdlicka, Victor E., St. Louis
Huber, Erwin T., St. Louis
Huber, Lasley E., Moberly
Huck, Frank F., Fenton
Huck, Richard F., St. Louis
Huckstep, Robert A., Farmington
Hudson, G. R., Kirksville
Huggins, Albert M., St. Louis
Hughes, Edgar O., Dixon
Hughes, Gerald E., Kansas City
Hughes, Judson M., St. Joseph
Hughes, Robert G., Creve Coeur
Hughes, Shelby B., Clinton
Hulbert, Bernard, St. Louis
Hull, Walter S., Faucett
Humberd, Charles D., Barnard
Hummel, Anton J., St. Louis
Humphrey, Harvey A., St. Louis
Humphrey, Henry M., Brashear
Humphreys, Edward T., Boonville
Hungate, Carroll P., Kansas City
Hunt, Claude J., Kansas City
Hunt, John W., Jr., Leadwood
Hunt, Lloyd H., Salem
Hunt, W. J., St. Joseph
Hunter, Charles H., Washington, D. C.
(Member St. Louis Medical Society)
Hunter, James R., Webster Groves
Hunter, Martin P., Kansas City
Hurst, Ben B., Lebanon
Hurst, W. W., Joplin
Hurwitt, Frank, Kansas City
Husted, George W., Parma
Hutchinson, James H., Jr., St. Louis
Hutto, A. Herman, St. Louis
Hutton, Joseph L., St. Louis
Hyman, Anna, St. Louis
Hyndman, Charles E., St. Louis

I

Ide, Lucien W., St. Joseph
Imes, Clifford H., Los Angeles, Calif.
(Member Ozarks Medical Society)
Imes, Elvin D., Maryville
Ingham, Walton C., Kansas City
Inkley, John J., St. Louis
Irich, Carl C., Webster Groves
Irland, Robert D., Kansas City
Irwig, Fred, Kansas City
Irwin, William F., Leasburg
Isbell, Charles H., Carthage
Israel, Milton R., St. Louis
Ittner, George W., Jr., St. Louis
Ivy, Henry B., Springfield
Izmirlian, Grant, Webster Groves

J

Jackson, Robert L., Columbia
Jackson, William R., Kansas City
Jackson, William Raymond, Maryville
Jacob, Walter, Kansas City
Jacobs, Charles C., St. Louis
Jacobs, Frederick A., St. Louis
Jacobs, Morton, Kansas City
Jaeger, Joseph N., Jackson
Jaime, Nicholas, Kansas City
James, Edward D., Joplin
James, Norman A., St. Louis
James, Otis E., Jr., Kansas City
James, Robert M., Joplin
James, William M., St. Louis
Janney, James G., Jr., Clayton
Jansen, Robert, Kansas City
Jarvis, James A., Kansas City
Jarvis, William J., Kansas City
Jaudon, Joseph C., St. Louis
Javaux, Everett J., St. Louis
Jean, J. Ted, St. Louis
Jeans, Virgil, Joplin
Jeck, Howard S., Jr., St. Joseph
Jeffries, Robert C., Kansas City
Jenkins, Joseph M., St. Charles
Jenkins, Paul A., Lebanon
Jennett, Harry N., Kansas City
Jennett, James H., Kansas City
Jennings, Ethlyn C., North Kansas City
Jennings, Perry W., Canton
Jennings, Robert J., Windsor
Jensen, J. Ernest, St. Louis
Jick, Sidney, St. Louis
Johns, G. A., Marshall
Johnson, C. Laurence, Kansas City
Johnson, Charles R., Monroe City
Johnson, Charles S., Warrensburg
Johnson, David S., St. Louis
Johnson, Edgar W., Kansas City
Johnson, Edward M., Ft. Sam Houston, Texas
(Member Chariton-Macon-Monroe Randolph Counties)
Johnson, Ferrell H., Lebanon
Johnson, Frank C., Doniphan
Johnson, George L., Springfield
Johnson, Glenn D., Maysville
Johnson, Grover C., Marthasville
Johnson, John E., Kansas City
Johnson, M. C., Richmond
Johnson, Mitchell D., Ferguson
Johnson, Paul A., Kansas City
Johnson, Q. Ray, Jr., Louisiana
Johnson, Richard E., Columbia
Johnson, Roy, Ferguson
Johnson, Thomas L., Fulton
Johnson, Thomas M., Kansas City
Johnson, Warford B., Springfield
Johnson, William A., Kansas City
Johnson, William F., Springfield
Johnston, Joseph L., Springfield
Johnstone, John, Jr., St. Louis
Johnstone, Paul N., Kansas City
Jolley, J. Frank, Mexico
Jolly, Benjamin N., Mexico
Jolly, William H., Mexico
Jonas, Harry S., Jr., Independence
Jones, Andrew B., St. Louis
Jones, Augustin, St. Louis
Jones, Dorothy J., Clayton
Jones, Edward E., Lilbourn
Jones, Edward S., Harrisonville
Jones, Garnett, St. Clair
Jones, George H., Kansas City
Jones, Grey, St. Louis
Jones, James B., Brentwood
Jones, John B., Kirksville
Jones, Keith D., Warrensburg
Jones, Otey S., St. Louis
Jones, Paul L., Flat River
Jones, Ralph H., Marshall
Jones, Richard A., St. Louis
Jones, Theodore R., Kansas City
Jones, Vincent L., St. Louis
Jones, William E., St. Louis
Jordan, Edward J., St. Louis
Jordan, Ray B., Windsor
Jordan, Walter R., St. Louis
Jorel, Louis E., St. Louis
Jorstad, Louis H., St. Louis
Joseph, Harold J., Ladue
Joslyn, Harold L., St. Louis
Jost, Charles A., St. Louis
Judy, Joseph D., Ferguson
Jungk, Carl G. W., St. Louis
Justus, John B., Kansas City

K

Kahn, Lawrence, St. Louis
Kaiser, Clarence D., Hayti
Kallenbach, G. P., Mexico
Kamakas, Nicholas, Ferguson
Kampschmidt, August W., Bethlehem, Pa.
(Member Boone County)
Kanagowa, H., Jefferson City

Kane, Clyde E., St. Louis
Kane, R. Emmet, St. Louis
Kantor, Julius M., Kansas City
Kantor, Samuel, Kansas City
Kaplan, Albert, Normandy
Kappesser, Netajean Broome, St. Louis
Kappesser, Roland C., St. Louis
Karandjeff, A. D., St. Louis
Karl, Michael M., St. Louis
Karraker, Alvan G., Farmington
Kaskie, Clifford R., Clayton
Kasten, Melvin C., Cape Girardeau
Katz, Milton, Kansas City
Katz, Samuel D., St. Louis
Kauffman, Ruth, Versailles
Kaul, Philip G., Kansas City
Kealhofer, George C., Kansas City
Kearney, Elmer F., Oregon
Keats, Theodore E., Columbia
Keeble, Charles B., St. Louis
Keeler, James E., Kansas City
Keenoy, John J., St. Louis
Keffler, Karl L., St. Louis
Kehoe, J. Joseph, St. Louis
Keim, John H., Cape Girardeau
Keim, John P., St. Louis
Keith, Willis E., Kansas City
Keller, Joseph M., St. Louis
Keller, Louis, St. Louis
Keller, Maurice J., St. Louis
Keller, Robert M., Owensville
Kellett, John G., Webster Groves
Kelley, Gilbert B., Savannah
Kelley, Isaac D., Jr., St. Louis
Kelley, Ralph R., Savannah
Kelley, Robert W., St. Louis
Kelley, Walter L., Affton
Kelling, Douglas G., Waverly
Kelling, George A., Waverly
Kelling, Jordan, Waverly
Kelly, Charles A., St. Louis
Kelly, Eugene H., Kansas City
Kelly, John B., Berkley
Kelly, Marshall W., Jefferson City
Kelly, R. Emmet, St. Louis
Keltner, Raymond O., Raytown
Kempinsky, Warren H., St. Louis
Kendis, Joseph B., St. Louis
Kennard, George K., Kansas City
Kennedy, Francis L., St. Louis
Kennedy, John L., Slidell, La.
(Member St. Louis County)
Kent, Bela K., Kansas City
Kent, Clifford F., Kansas City
Kepler, Earl C., Fulton
Kerr, David N., St. Louis
Kerr, Frank T., Monett
Kerr, Russell, Kansas City
Kessler, Joseph J., St. Louis
Ketcham, William M., Kansas City
Ketron, Marvin B., Kansas City
Kettelkamp, George D., St. Louis
Ketterman, Herbert L., Kansas City
Kettner, Edward G., Kansas City
Keyes, Edward L., St. Louis
Kibbe, Edgar A., California
Kibbe, John H., Monroe City
Kieber, P. W., St. Joseph
Kieffer, Roland S., St. Louis
Kieffer, Victor B., Jr., St. Louis
Kiehl, Katharine, Joplin
Kienberger, Paul A., Kansas City
Kiene, Richard H., Kansas City
Kienzle, Edward C., St. Louis
Kilker, Clarence H., St. Louis
Kilker, Donald E., St. Louis
Killough, John H., Columbia
Kimball, Ireland W., Salem
Kimball, Merritt H., Kansas City
Kimberlin, Herbert C., Trenton
Kimelman, Nathan, St. Louis
Kimes, Ira D., Cameron
Kinder, James A., Cape Girardeau
King, Elbert R., Boise, Idaho
(Member West Central Counties)
King, Eustace E., III, St. Louis
King, Francis C., St. Louis
King, John V., St. Louis
King, Robert B., St. Louis
King, Samuel J., St. Louis
King, Walter R., Kansas City
Kingsbury, Helen C., Kansas City
Kingsland, Robert C., Clayton
Kinner, Helmuth M., St. Louis
Kinsella, Dalton L., Jr., Miami, Fla.
(Member St. Louis Medical Society)
Kinsella, Edward D., St. Louis
Kinsella, R. A., St. Louis
Kinsella, Ralph A., Jr., St. Louis
Kirchner, Walter C. G., St. Louis
Kirk, Charlie W., Hopkins
Kirkpatrick, Milton E., Kansas City
Kirschman, Robert E., Joplin
Kirstein, Melvin B., St. Louis
Kirtz, Louis P., St. Louis
Kiser, David M., Kansas City
Kister, George E., St. Charles
Kistner, William F., University City
Kitchell, William E., St. Clair
Kitchen, William M., Kansas City
Klaff, Daniel D., St. Louis
Klebba, Larry B., Jefferson City
Klein, Andrew G., St. Louis
Klein, Arnold G., St. Louis
Klein, Arthur, Hyattsville, Md.
(Member St. Louis Medical Society)
Klein, Bert, St. Louis
Klein, Edward H., Kansas City
Klein, Harry A., St. Louis
Klein, Morton W., Pomona, Calif.
(Member St. Louis County)
Kleinschmidt, Clinton, St. Louis
Klenk, Charles L., St. Louis
Klepinger, Dayton P., Kansas City
Klinge, Frederick W., St. Louis
Klingner, George M., Springfield
Klink, Lon B., Fort Monroe, Virginia
(Member Lincoln-St. Charles Counties)
Klippel, Allen P., St. Louis
Klippel, Bernhard T., St. Louis
Kloeppel, Carl F., Kirkwood
Klym, Nicholas, St. Louis
Knabb, Arthur D., Springfield
Knabb, Harris, Springfield
Knabb, Henry F., Springfield
Knabb, Henry F., Jr., Springfield
Knabb, Kenneth E., Springfield
Knapp, Rudolph, Golden City
Kneal, E. Ellsworth, St. Louis
Kneibert, Fred L., Poplar Bluff
Knepper, P. A., St. Joseph
Knese, Luke A., St. Louis
Knight, Franklin P., St. Louis
Knight, John S., Kansas City
Knight, Lyle B., Lee's Summit
Knight, William A., Jr., St. Louis
Knipschild, B. F., Marshall
Knoch, H. Kermit, Kansas City
Knoke, Frederick W., Jr., St. Louis
Knopf, Keith, Brookfield
Knowlton, Norman P., Jr., St. Louis
Knox, Earl R., Kansas City
Koch, Robert E., St. Louis
Koehler, Charles A., Kansas City
Koehler, John W., Joplin
Koenig, Frank J., Kansas City
Koenig, George H., St. Petersburg, Fla.
(Member St. Louis Medical Society)
Koenig, Karl F., St. Louis
Koerner, Kenneth A., Clayton
Koessel, Arthur W., St. Louis
Kohler, Eugene J., St. Louis
Kohler, Louis H., St. Louis
Kohn, Cecil M., Kansas City
Kolze, Vernon W., Springfield
Komanetsky, W. M., St. Louis
Konzelmann, John A., St. Louis
Koon, Bernard T., St. Louis
Kopp, Jules H., St. Louis
Kopp, Leonard J., St. Louis
Koppenbrink, Walter E., Jr., Higginsville
Korn, Robert L., Clayton
Korth, William M., Kansas City
Kotkis, A. J., Brentwood
Kotner, Lawrence M., St. Louis
Kountz, William B., St. Louis
Kouri, Martin F., St. Louis
Koutsoumpas, William V., St. Louis
Kovac, Albert P., Kansas City
Kowert, Edward H., St. Louis
Kozal, Francis L., Crystal City
Kraft, Edward O., Brentwood
Kraft, Jacob, Kansas City
Kramer, Fred, St. Louis
Kramer, Scott G., Philadelphia, Pa.
(Member South Central Counties)
Kramolowsky, Helmuth H., St. Louis
Kraner, Justin F., St. Louis
Kranson, Seymour J., Independence
Kratz, Paul E., Cape Girardeau
Krause, G. Lynn, St. Louis
Krebs, Joseph M., St. Louis
Krebs, Otto S., St. Louis
Krieger, John L., St. Louis
Kromer, Charles, St. Louis
Kubitschek, Paul F., St. Louis
Kuebrich, Thomas C., Ferguson
Kuenzi, Donald E., Gashland
Kuhn, John R., Jr., Joplin
Kuhn, William F., II, Kansas City
Kulowski, Jacob, St. Joseph
Kurth, Robert K., St. Louis
Kurtzeborn, Edwin E., Tampa, Fla.
(Member St. Louis Medical Society)
Kutryb, Walter J., St. Louis
Kurz, Rudolph F., St. Louis
Kuttner, Marianne, St. Louis
Kyger, Fred B., Kansas City
Kyner, Thomas A., Kansas City

L

Lachance, Leopold, Centralia
Lacy, N. Eugene, Kansas City
Ladd, Charles B., St. Louis
Ladenson, Roland P., Columbia
LaDriere, Raymond J., St. Louis
Laffoon, France L., Raytown
LaHue, L. D., Butler
Lais, Lyman W., Sacramento, Calif.
(Member Jackson County)
Lakes, John D., Granite City, Ill.
(Member St. Louis Medical Society)
Lally, James J., Kansas City
Lam, Robert L., St. Louis
Lamar, Frederick C., Kansas City
Lamar, Robert F., Kansas City
Lamb, Wanda, St. Louis
Lamb, Woodrow M., Caruthersville
Lambert, Marian, Kansas City
Lamke, Charles M., Columbia
Lamson, Roy C., Neosho
Lamy, John E., Sedalia
Landau, Daniel B., Hannibal
Landau, William M., St. Louis
Landis, George K., Kansas City
Landree, James C., St. Louis
Lane, Clinton W., St. Louis
Laney, Ronald L., Vista, Calif.
(Member Jasper County)
Langan, William J., Jr., St. Louis
Lange, Adolph C., St. Louis
Langenbach, Alfred M., St. Louis
Langhus, Melvin O., North Kansas City
Langston, W. R., Springfield
Lanier, Earl W., St. Louis
Laning, J. H., Kansas City
Lankford, Harold D., Mexico
Lanning, Richard C., Ste. Genevieve
Lanning, Robert J., Hannibal
Lansche, Elmer A., St. Louis
Lapi, Angelo, Kansas City
Lapi, Ruth M., Kansas City
Lapp, Harry C., Kansas City
Larimore, Joseph W., St. Louis
Larkin, Rosemary R., St. Louis
Larsen, Kenneth V., St. Louis
Larson, Paul U., St. Louis
Lassar, Gilbert N., St. Louis
Latham, Kenyon S., California
Latham, Raymond W., Kansas City
Lau, Gustav A., St. Joseph
Laurenzana, Frank P., Kansas City
Lawless, Charles L., Marshall
Lawrence, George H., St. Louis
Lawrence, John R., Marshall
Lawrence, John V., St. Louis
Lawton, John T., St. Louis
Lawton, Lawrence W., St. Louis
Lawton, Thomas P., St. Louis
Layton, Ira C., Kansas City
LeBlanc, Leo J., St. Louis
Lederer, Charles M., Warrensburg
Lederman, Joseph, St. Louis
Lee, Chester E., Kansas City
Lee, George C., Kansas City
Leech, Charles A., Columbia
Leech, Maurice P., Fayette
Leeper, Claude K., Columbia
Legner, Stanley G., Perryville
Lehner, Richard L., Kansas City
Leidinger, Karl J., Republic
Leifer, William W., Kansas City
Leitch, Cecil G., Kansas City
Leitz, Frank B., Kansas City
Lembeck, Joseph A., St. Louis
Lemire, Robert W., Sedalia
Lemmon, George B., Springfield
Lemmon, G. Bruce, Jr., Springfield
Lemoine, Albert N., Kansas City
Lenobel, Milton I., Clayton
Lentz, Harold C., Neosho
Leonard, Ward H., Kansas City
Lerner, Abe F., Clayton
Lerwick, Everett R., St. Louis
Leslie, Charles H., Kirkwood
Leslie, James F., Springfield
Leslie, J. Paul, Jefferson City
Leslie, J. T., Jefferson City
Levey, Harry B., Kansas City
Levey, Simon A., St. Louis
Levin, Marvin E., University City
Levin, Sidney S., St. Louis

Levine, Ervan L., Vandalia
Levitt, Joseph, St. Louis
Levy, Irwin, St. Louis
Lewellen, Charles H., Louisiana
Lewellen, Charles P., Louisiana
Lewin, Wilbur H., St. Louis
Lewis, James E., Jr., St. Louis
Lewis, Ray B., Columbia
Lewis, Revis C., Kansas City
Leydig, Stanley M., St. Louis
Lichtor, Alexander, Kansas City
Lichtor, Joseph M., Kansas City
Lieb, Francis X., St. Louis
Lieb, Otto, St. Louis
Lieberman, B. Albert, Jr., Kansas City
Lieberman, David M., St. Louis
Liebmann, Fritz M., St. Louis
Liersch, Joseph C., Kansas City
Liese, Grover B., St. Louis
Liggett, Hiram S., St. Louis
Liggett, M. S., Marceline
Lilly, Terry E., Kansas City
Lilly, Terry E., Jr., Kansas City
Limbaugh, W. R., Hayti
Lindeman, Carl H., St. Louis
Linquist, Carl N., Kansas City
Lindsay, John W., Conway
Link, Alexander J., St. Louis
Link, Vance E., Independence
Linton, C. S., Kennett
Linville, Howard E., Kansas City
Lipschitz, Ervin, Clayton
Lipsitz, Ellis S., St. Louis
Lischer, Carl E., St. Louis
Lissack, Edmund, Concordia
Liston, Odus, Oak Grove
Littauer, David, St. Louis
Little, Monroe H., St. Louis
Littmann, Lewis E., Clayton
Litton, Lyle D., Springfield
Litzow, Louis T., St. Louis
Locker, George E., Iantha
Lockhart, Charles E., Springfield
Lockwood, Ira H., Kansas City
Lockwood, W. E., Slater
Lodwick, Gwilym S., Columbia
Loeb, Virgil, Jr., St. Louis
Loeffel, Ellen S., St. Louis
Loewy, Louise B., Kansas City
Logan, James A., Warsaw
Logue, John, Columbia
Lohr, Curtis H., St. Louis
Lohr, Robert W., St. Louis
Londe, Sol, St. Louis
London, Stanley L., St. Louis
Lonergan, Warren M., St. Louis
Long, David S., Harrisonville
Long, Forrest C., Savannah
Long, Frank B., Sedalia
Long, Robert S., Kansas City
Longfield, Fred J., Lathrop
Lonsway, Maurice J., St. Louis
LoPiccolo, Vincent J., St. Louis
Lord, Richard E., St. Louis
Lottes, James O., St. Louis
Loughead, John R., Poplar Bluff
Love, Drury Mc., Kansas City
Love, Robert W., Jr., Kansas City
Love, W. S., Nevada
Loving, B. Rush, Ballwin
Lovinggood, Thomas A., Cape Girardeau
Lowe, Alvin L., Sedalia
Lowe, Horace A., Springfield
Lowe, Horace A., Jr., Springfield
Lowell, Paul, Kansas City
Lowenstein, Paul S., Clayton
Lowney, John F., Columbia
Lowrey, Ford J., Kansas City
Loyd, Earl L., Jefferson City
Loyd, Herlan D., Jefferson City
Lucas, John H., Brookfield
Lucido, Joseph L., St. Louis
Lucke, Eugene M., Hannibal
Luckenbill, Paul T., Plattsburg
Luckey, Horace L., Maplewood
Luedde, Fullerton W., St. Louis
Luedde, Philip S., St. Louis
Luh, Andrew, St. Louis
Luman, Frank E., Edina
Lund, Herluf G., St. Louis
Lund, Robert H., St. Louis
Lundgren, Fred H., Jr., Kansas City
Luppens, Albert F., Lee's Summit
Lurie, Harold H., Springfield
Lusk, Charles A., Jr., Butler
Luten, Drew W., St. Louis
Luter, Carter W., Butler
Lutkewitte, Joseph F., St. Marys
Lutz, Martin H., Robertson
Lyddon, Harold R., Jr., Kansas City
Lyle, Robert R., Versailles
Lyman, Edward H., St. Louis
Lynxwiler, Chester P., St. Louis
Lytle, William R., Rolla
Lyttle, G. C., St. Louis
Lytton, George J., Kansas City
Lytton, William B., Clayton

Mc

McAdam, Charles R., St. Louis
McAdoo, Hosea W., Springfield
McAfee, C. Alan, St. Louis
McAlhany, Howard J., Springfield
McAlester, Andrew W., III, Kansas City
McArtor, Thomas R., Browning
McBurney, C. A., Slater
McCall, Edwin L., Brentwood
McCall, William K., Laddonia
McCalla, John P., Kansas City
McCallum, A. J. C., Aurora
McCann, John F., St. Louis
McCann, Louis P., Nevada
McCanse, Raymond A., Kansas City
McCarroll, Henry R., St. Louis
McCarthy, Eugene F., St. Louis
McCarthy, Thomas D., Ferguson
McCarthy, William F., Blue Springs
McCaughan, John M., St. Louis
McClanahan, Robert C., Kansas City
McCloskey, R. Bruce, Webster Groves
McClure, David N., St. Louis
McClure, Thomas C., Sikeston
McComas, Robert E., Mesilla, New Mexico
(Member Jackson County)
McConchie, James E., Independence
McCorkle, E. Lee, Marshall
McCormick, James E., North Kansas City
McCoy, Frederick J., Kansas City
McCoy, Warren R., Caruthersville
McCracken, Samuel R., Excelsior Springs
McCraw, Doyle C., Bolivar
McCubbin, Clarence R., Kansas City
McCubbin, J. Burleigh, Fulton
McCullough, Campbell C., Kansas City
McCunniff, William B., Kansas City
McDaniel, John R., St. Joseph
McDonald, Bruce P., Kansas City
McDonald, Eugene F., Jackson
McDonald, George H., St. Louis
McDonald, Wilbur P., St. Joseph
McDonnell, John F., Kansas City
McDonough, Robert C., St. James
McDowell, Frank S., St. Louis
McElroy, Glenn L., Columbia
McElvain, Robert C., St. Louis
McFadden, James F., Clayton
McFadden, James F., Jr., St. Louis
McFarland, M. D., Kansas City
McGennis, Patrick, St. Louis
McGinnis, Albert E., St. Louis
McGinnis, Byron J., St. Louis
McGinnis, William F., Clayton
McGinty, Charles P., Cape Girardeau
McGlothlan, Arthur B., St. Joseph
McHale, Thomas C., Kansas City
McHaney, John W., Jefferson City
McIntire, Emery J., Carthage
McIntire, Landon R., St. Charles
McKaskle, Clarence W., Caruthersville
McKee, Joseph W., Kansas City
McKinstry, Karl V., DeSoto
McKnelly, William Von, Jefferson City
McLean, Royal C., Kirkwood
McLelland, Richard I., University City
McLeod, John, Kansas City
McMahan, John H., St. Louis
McMahon, Alphonse, St. Louis
McMahon, Bernard J., Clayton
McMillan, Thomas E., Kansas City
McMurray, Herbert C., Ballwin
McMurtry, Leonard K., Moberly
McNalley, Frank P., St. Louis
McNamara, John J., Florissant
McNamee, Owen J., St. Louis
McNamee, William F., Affton
McNearney, Joseph, St. Louis
McNeel, John O., St. Louis
McNeel, Lee A., Jr., Greenfield
McNew, William T., Carthage
McPhee, William R., Omaha, Nebraska
(Member Jackson County)
McPheeters, James W., Poplar Bluff
McPheeters, J. W., Jr., Poplar Bluff
McPherson, Owen P., Prairie Village, Kansas
(Member Jackson County)
McPike, Lloyd H., Joplin
McShane, Quentin W., St. Louis
McSwiney, John G., St. Louis
McVay, James R., Kansas City
McVay, James R., Jr., Kansas City

M

Maas, Hermann, St. Louis
Mabrey, John P., Plattsburg
Macauley, Bernard J., Poplar Bluff
MacBryde, Cyril M., Kirkwood
Macdonald, William C., St. Louis
Macdonnell, Carey R., Marshfield
Macdonnell, Thomas M., Marshfield
MacInnis, Florence E., Kansas City
Mack, Mary L., Joplin
Mack, Robert E., Washington, D. C.
(Member St. Louis Medical Society)
Mackey, John F., Jr., St. Louis
Macko, Joseph R., St. Louis
Maclean, John A., Monrovia, California
(Member Jackson County)
MacNaughton, Robert A., Jackson
Macnish, James M., St. Louis
Macon, William L., Jr., St. Louis
Maddox, Albert R., Sedalia
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Washburn, J. Loren, Versailles
Washburn, Walter L., New York, N. Y.
(Member Clay County)
Washington, Edward L., Columbia
Wasserman, Helman C., St. Louis
Waterman, F. M., Liberty
Waters, E. B., Kirkwood
Waters, Hugh R., St. Louis
Watkins, George L., Jr., Farmington
Watson, Ethel, Independence
Wattenberg, Carl A., St. Louis
Watts, Byron E., Jefferson City
Waxman, David, Kansas City
Waxman, Jane Z., Kansas City
Wayland, Thomas A., Camdenton
(Member St. Louis Medical Society)
Webb, Leslie R., Jr., Springfield
Webb, Lewis M., St. Louis
Webb, Marion A., St. Louis
Webb, Paul B., St. Louis
Webb, Paul B., Jr., St. Louis
Webb, Paul K., St. Louis
Weber, Eugene P., St. Louis
Weber, Sol, St. Louis
Weber, William K., St. Louis
Webster, Joseph G., Kansas City
Webster, Roger W., San Jose, Calif.
(Member Jasper County)
Weed, Randal W., St. Joseph
Weeks, George R., Lebanon
Weger, Carl C., Keytesville
Wegner, Carl R., St. Louis
Weiford, Edward C., Kansas City
Weiler, Thomas J., St. Louis
Weinel, Francis G., St. Louis
Weinhaus, Robert S., St. Louis
Weinsberg, William C., St. Louis
Weintraub, Solomon A., St. Louis
Weir, Don C., St. Louis
Weir, Royal A., St. Louis
Weis, Matthew W., St. Louis
Weisbrod, Wilfred B., St. Louis
Weisman, Renate D., St. Ann
Weisman, Sol, St. Louis
Weiss, James M. A., University City
Weiss, Richard S., St. Louis
Weitman, Maximilian, St. Louis
Welborn, William S., Overland
Welch, Hooper W., St. Louis
Welker, Joseph E., Kansas City
Well, J. W., Palmyra
Welsh, Laurence C., St. Louis
Weltscheff, Christo A., Kansas City
Wempe, G. Raymond, Maryville
Wennerman, Sam F., St. Louis
Wentzel, Louis R., St. Louis
Wepprich, Michael S., Washington
Werner, Dean F., North Kansas City
Werner, Franklin C., Kansas City
Werner, William A., St. Louis
Werth, Duncan S., Glendale
West, Joseph W., St. Louis
Westerman, Henry C., University City
Weston, Ursa C., Galt
Westphaelinger, Henry F., St. Louis
Westrup, Arthur W., Webster Groves
Westrup, Ellsworth A., Kirkwood
Wetzel, Fred S., Jr., Carthage
Weyerich, Leon F., St. Louis
Weyrens, F. P., St. Charles
Wheat, Myron W., Jr., St. Louis
Wheeler, J. D., Mountain Grove
Wheeler, John H., Kansas City
Whitaker, Topsy T. H., East Prairie
White, Charles H., Mission, Kansas
(Member Jackson County)
White, George A., Kansas City
White, Homer E., Naylor
White, Orville O., St. Louis
White, R. Ned, Springfield
White, Stoughton F., Kansas City
White, William H., Clayton
White, W. H., Jr., Clayton
Whitehead, Frank F., Neosho
Whiteman, John R., Kansas City
Whitener, Paul R., St. Ann
Whitman, Doyle C., Kansas City
Whitmore, J. Stewart, Kansas City
Whitsell, John C., St. Joseph
Whitsell, Ora E., St. Joseph
Whitten, Marion F., Carthage
Wiatt, William S., La Jolla, Calif.
(Member St. Louis Medical Society)
Wibbels, Howard L., St. Louis
Wicks, Mary R., Evanston, Ill.
(Member St. Louis Medical Society)
Wiegand, Herbert C., St. Louis
Wieman, Harry K., Joplin
Wien, Irving A., Kansas City
Wiener, Meyer, Coronado, Calif.
(Member St. Louis Medical Society)
Wiese, Harry W., St. Louis
Wiggins, Roland L., Columbia
Wilbur, Ronald E., Rochester, Minn.
(Member Clinton County)
Wilcox, Claude V., St. Louis
Wilcox, Howard L., Lawrence, Kansas
(Member Cooper County)
Wilcoxen, William B., Bowling Green
Wild, Aloysius A., St. Louis
Wiles, Jack N., West Plains
Wilhelm, Warren F., Kansas City
Wilhelmi, Otto J., St. Louis
Wilkinson, Everett A., Kansas City
Will, Leo A., St. Louis
Williams, Anderson J., Jr., Kansas City
Williams, Delon A., Kansas City
Williams, Earl K., St. Louis
Williams, Edward B., Jr., St. Louis
Williams, Frank R., Springfield
Williams, John W., Oak Grove
Williams, John W., Springfield
Williams, John W., Jr., Springfield
Williams, Joseph C., Jr., Kansas City
Williams, Luke E., Kansas City
Williams, Ray D., St. Louis
Williams, R. S., Mexico
Williams, Robert A., Kansas City

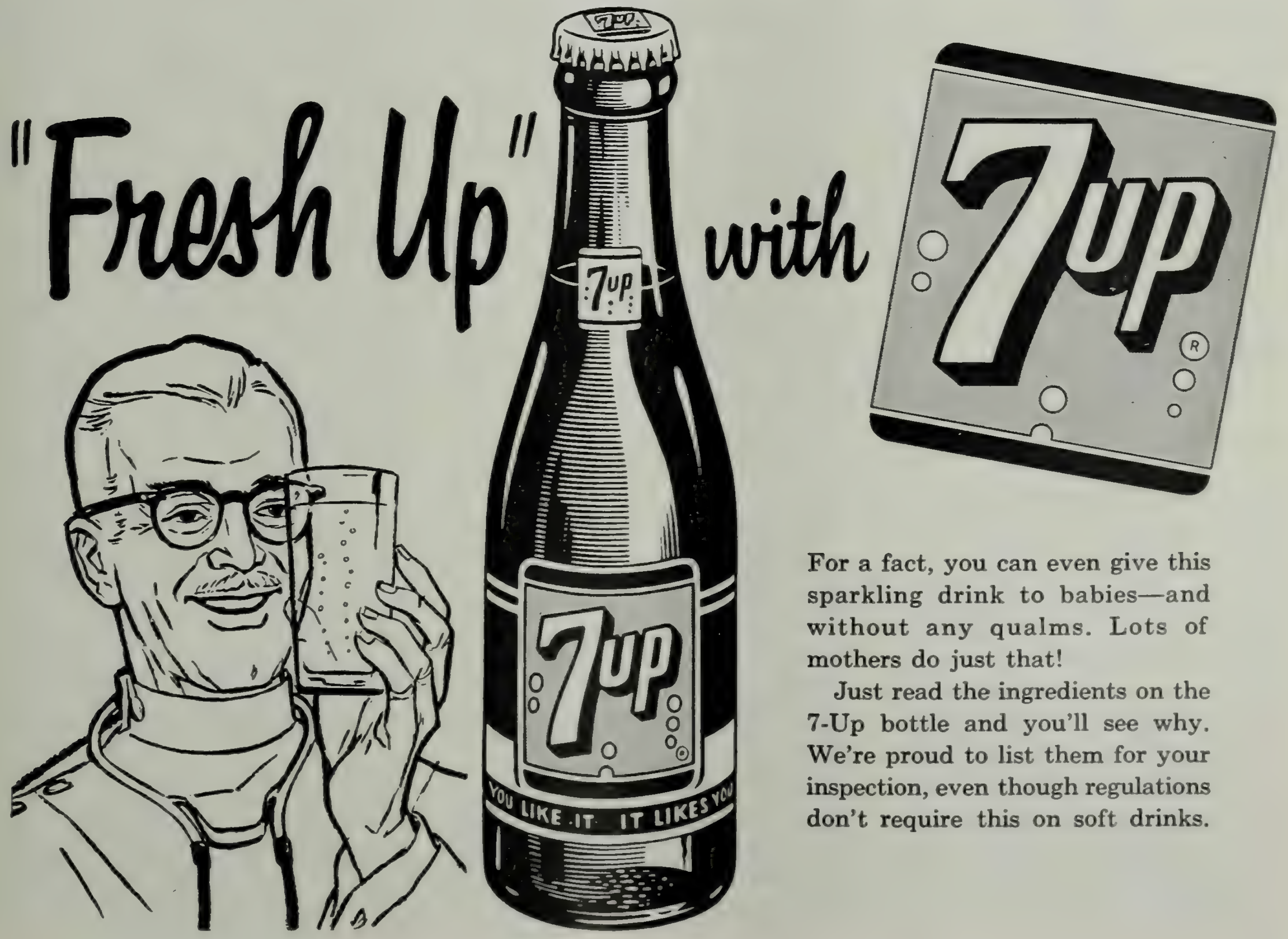
Williams, Robert F., Springfield
Williams, Starks J., Kansas City
Williams, Vincent T., Kansas City
Williamson, O. E., St. Louis
Williamson, Walter E., St. Louis
Willis, Norman E., Poplar Bluff
Willits, Lyle G., Kansas City
Willman, Vallee L., St. Louis
Willoughby, James W., Denver, Colo.
(Member Clay County)
Willoughby, Jean B., Kansas City
Willumsen, Henry C., St. Joseph
Wilson, Alice H., Joplin
Wilson, Charles F., Cape Girardeau
Wilson, Clifford C., Kansas City
Wilson, Fred K., Winston
Wilson, Hester J., Kansas City
Wilson, Hugh M., St. Louis
Wilson, Keith S., St. Louis
Wilson, Kenneth O., St. Louis
Wilson, L. C., Kennett
Wilson, Virgil R., Rosendale
Wilucki, Leo E., St. Louis
Wilucki, Melvin R., St. Louis
Wimber, Thomas C., St. Louis
Wimp, J. J., Kirksville
Windmiller, Myrl E., Columbia
Windsor, Richard B., St. Louis
Winer, Herbert J., Kansas City
Wing, Herman, St. Louis
Winkelman, Esther B., Kansas City
Winn, George W., Boonville
Winston, Bernard H., Kansas City
Winter, Tyrus D., St. Louis
Winterer, Roland A., St. Louis
Winters, F. A., St. Louis
Wippo, Edgar W., St. Louis
Wirthlin, Edward H., St. Louis
Wise, George W., Kansas City
Wise, Gordon F., Springfield
Wissmath, Frank S., Clayton
Wissner, Seth, Clayton
Withers, Orval R., Kansas City
Withrow, John B., North Kansas City
Witt, Clyde M., St. Louis
Witt, David B., St. Louis
Witten, David M., Trenton
Wittler, Harry A., Brentwood
Wolf, Jack W., Kansas City
Wolff, Paul G., Cape Girardeau
Woltzen, Samuel W., Urich
Womble, James G., Augusta, Ga.
(Member St. Louis Medical Society)
Wommack, Fred L., Crane
Wood, Bennett R., St. Louis
Wood, George F., Fulton
Wood, George H., Carthage
Wood, Laurence E., Kansas City
Wood, William W., Springfield
Woodruff, Frederick E., St. Louis
Woods, Harold V., Independence
Woods, Walton C., Independence
Wooldridge, Bart F., Joplin
Wooldridge, W. E., Springfield
Woolf, Ralph B., St. Louis
Woolsey, Doris S., Kirkwood
Woolsey, Robert D., St. Louis
Workman, George M., Hermann
Worley, Charles A., Sweet Springs
Wortmann, Robert F., Kansas City
Wotawa, William J., St. Louis
Wray, R. B., Nevada
Wright, George W., Webb City
Wright, Leslie H., Danville, Ky.
(Member West Central Counties)
Wright, Robert P., Kansas City
Wu, William Q., Kansas City
Wulff, George J. L., Jr., St. Louis
Wyatt, Lois C., Kirkwood

Y

Yaeger, Gerald A., St. Louis
Yancey, Daniel L., Springfield
Yanow, Mitchell, Clayton
Yates, J. Lewis, Mount Vernon
Yore, Richard W., St. Louis
York, William B., Sarcoxie
Yoskit, Harry, Festus
Yost, Paul W., Arlington, Va.
(Member St. Louis Medical Society)
Yost, Walter B., Hinsdale, Ill.
(Member St. Louis County)
Young, Calvin C., Jr., Kansas City
Young, James E., Kansas City
Young, Jesse W., Kansas City, Kansas
(Member Jackson County)
Young, John S., St. Louis
Young, Leo P., St. Louis
Young, Robert H., Moberly
Younge, Walter A., St. Louis
Younger, Anita, St. Louis
Younger, Ernest, St. Louis
Youngman, George A., North Little Rock, Ark.
(Member St. Louis Medical Society)
Yuan, Louis S. K., St. Louis

Z

Zacharias, David L., Kansas City
Zahorsky, John, Steelville
Zahorsky, Theodore S., St. Louis
Zahrt, Frank H., Princeton
Zeffren, Joel L., St. Louis
Zeinert, Oliver B., University City
Zeitler, Walter A., Jennings
Zeitler, William T., St. Louis
Zellermayer, Jacob, Kansas City
Zentay, Paul J., St. Louis
Ziegelmeyer, John S., St. Louis
Ziegler, Allen M., Kansas City
Ziegler, William H., Boonville
Zillgitt, George H., St. Louis
Zimmerman, Joseph A., Kennett
Zimmerman, William H., Fort Scott, Kansas
(Member Jackson County)
Zimmermann, Carl A. W., III, Cape Girardeau
Zingale, Frank G., St. Louis
Zink, Oscar C., Clayton
Zoglin, Nathan, Kansas City
Zuber, Harold V., Kansas City
Zuckner, Jack, St. Louis
Zwart, Claude H., St. Louis



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List of Members by County Societies

ADAIR COUNTY
(North Central Counties Medical Society)

ANDREW COUNTY MEDICAL SOCIETY

Baker, Warren C., Savannah
Holliday, Morgan Lee, Savannah
Kelley, Gilbert B., Savannah
Kelley, Ralph R., Savannah
Long, Forrest C., Savannah
Wilson, Virgil R., Rosendale

ATCHINSON COUNTY
(Nodaway-Atchinson-Gentry-Worth County Medical Society)

AUDRAIN COUNTY MEDICAL SOCIETY

Bland, Warren W., Vandalia
Coil, Paul E., Mexico
Davis, Leonard L., Jr., Mexico
Dwyer, Thomas L., Mexico
Ector, Henry J., Mexico
Epple, Kathryn C., Mexico
Epple, Lawrence K., Mexico
Gantt, Ernest S., Jr., Mexico
Garcia, Charles L., Mexico
Harrison, John F., Mexico
Jolley, J. Frank, Mexico
Jolly, Benjamin N., Mexico
Jolly, William H., Mexico
Kallenbach, G. P., Mexico
Lankford, Harold D., Mexico
McCall, William K., Laddonia
O'Brien, Harry F., Mexico
Rouse, David M., Mexico
Wallace, Edgar S., Mexico
Williams, Robert S., Mexico

BARRY COUNTY
(Ozarks County Medical Society)

BARTON-DADE COUNTY MEDICAL SOCIETY

Arnold, Herbert M., Lamar
Bickel, Vern T., Lamar
Cain, Alvin R., U. S. Army Hospital, Ft. Leonard Wood
Carroll, Thomas W., Lamar
Duckett, Claude E., Lamar
Guldner, Edmond, Lamar
Heilbrunn, Max, Lockwood
Knapp, Rudolf, Golden City
Locker, George E., Iantha
McNeel, Lee A., Jr., Greenfield

BATES COUNTY
(West Central Missouri Medical Society)

BENTON COUNTY MEDICAL SOCIETY

Logan, James A., Warsaw
Reser, Thomas S., Cole Camp

BOLLINGER COUNTY
(Unorganized)

BOONE COUNTY MEDICAL SOCIETY
(Columbia)

Allee, James W., Professional Bldg.
Allen, Horace E., 1 W. Broadway
Allen, Joseph E., State Cancer Hospital
Anast, C. S., 308 Thilly Ave.
Baker, James M., 16 S. 10th St.
Battersby, Richard S., 113 Westwood
Black, Samuel P. W., 1 Glenwood Court
Bolner, Anne U., University of Missouri
Brooke, Clement E., 501 Edgewood
Bruner, Claude R., Professional Bldg.
Bumgarner, James E., 7 Orchard Court
Burns, Thomas W., 106 Westwood Ave.
Chalkley, Judson I., Professional Bldg.
Chiasson, E. Chaille, 412 Guitar Bldg.
Cooper, Maurice E., 8 Wayne Road
Cope, James C., Professional Bldg.
Darnell, Thomas F. B., 909 University Ave.
Davis, Clarence D., 103 Parker Hospital
Dietrich, Karl D., Professional Bldg.
Etheredge, Maude Lee, 541 E. Terrace Presidio, San Francisco, Calif.
Evans, Alden M., Ellis Fischel State Cancer Hospital
Flynn, Joseph E., University of Missouri
Freeman, R., 811 Cherry St.
Garrett, Glen H., Professional Bldg.
Hall, John, Ashland
Hardwicke, Henry, Ashland
Hepner, Walter R., Jr., 1112 W. Broadway
Jackson, Robert L., University of Missouri
Johnson, Richard E., Ellis Fischel State Cancer Hospital
Kampschmidt, August W., R.R. 4, Bethlehem, Pa.
Keats, Theodore E., 206 Thilly Ave.
Killough, John H., University of Missouri
Lachance, Leopold, Centralia
Ladenson, Roland P., 16 S. 10th
Lamke, Charles M., Professional Bldg.
Leech, Charles A., 417 Guitar Bldg.
Leeper, Claude K., University of Missouri
Lewis, Ray B., 112 Park Hill
Lodwick, Gwilym S., 1607 University
Logue, John, 516 Crestland
Lowney, John F., University of Missouri
McElroy, Glenn L., 909 University Ave.
Miller, Leroy J., Guitar Bldg.
Modlin, John J., 310 Thilly Ave.
Neal, M. Pinson, University of Missouri
Overholser, Milton D., University of Missouri
Pullen, Roscoe L., University of Missouri
Rodes, Ned D., Ellis Fischel Cancer Hospital
Rodgers, Elrie P., 101 W. Broadway
Rodgers, Dorothy L., 102 S. Glenwood
Scheuber, Charles, 237 Long Rd., San Antonio, Texas
Schewe, Elmer J., Jr., Route 6
Schultz, Loraine E., Boone County Hospital
See, William B., Professional Bldg.
Simpson, Fred, University Hospital
Simpson, Lloyd, 411 Stewart Rd.
Smith, Grafton A., 3001 West Blvd. S.
Smith, Jason N., Jr., 513 West Blvd.
Smith, Stephen D., 1404 E. Broadway
Sodeman, William A., 103 Parker Hospital
Standley, Eugene T., University of Missouri
Stephenson, Hugh E., Jr., University of Missouri
Stewart, William J., 909 University Ave.
Stine, Dan G., Pelican Point, Camdenton
Suggett, Finis C., 805 Broadway
Thomas, Helen E. Y., Route 3
Thomas, Horace E., 909 University Ave.
Tinsley, John C., Jr., 6110th U.S.A.F. Hospital, APO 710, San Francisco, Calif.
Waggoner, Charles M., Professional Bldg.
Walters, John H., Guitar Bldg.
Walters, Laura, Guitar Bldg.
Ward, Robert L., Centralia
Washington, Edward L., 909 University Ave.
Wiggins, Roland L., 201 N. Third
Windmiller, Myrl E., 401 Guitar Bldg.

BUCHANAN COUNTY MEDICAL SOCIETY
(St. Joseph)

Allain, J. J., 902 Edmond St.
Allaman, John M., 439 Acacia Drive, Sarasota, Fla.
Ames, William H., 902 Edmond St.
Beck, Leroi, 1618 N. Third St.
Beck, Paul M., Physicians & Surgeons Bldg.
Benson, Scott C., 510 Corby Bldg.
Berney, Francis J., 1225 N. 10th St.
Biggins, Cloice H., 1346 Rose Ave., Ukiah, Calif.
Boteler, George M., St. Francis Hotel
Bristow, Robert B., Physicians & Surgeons Bldg.
Buck, Ronald, 902 Edmond St.
Butler, E. F., 902 Edmond St.
Carpenter, George T., 902 Edmond St.
Chiarottino, Joseph F., 1302 Faraon St.
Christ, Martin H., 6106 King Hill Ave.
Conrad, Robert W., 404 Tootle Bldg.
Craig, Owen W. D., 405 Tootle Bldg.
Dawson, Orville L., 701 Keokuk, Iowa City, Iowa
DuMont, Clement C., 1905 Francis St.
Elliott, John R., 801½ Francis St.
Ferguson, Luther J., 723½ Felix
Fischer, Joseph L., 824 Edmond St.
Forgrave, John R., 420 N. 8th St.
Forgrave, Leon P., 420 N. 8th St.
Forman, George W., P. O. Box 747
Fuson, Levi H., Kirkpatrick Bldg.
Grant, Claude S., 1302 Faraon St.
Greenberg, Charles, Physicians & Surgeons Bldg.
Grimes, M. E., Kirkpatrick Bldg.
Handler, Eric, Physicians & Surgeons Bldg.
Harner, Casper G., 902 Edmond St.
Herman, Allen I., 301 Physicians & Surgeons Bldg.
Howden, Thomas L., 407 Kirkpatrick Bldg.
Hughes, Judson M., Kirkpatrick Bldg.
Hull, Walter S., Faucett
Hunt, William J., 2600 Pacific St.
Ide, Lucien W., P. O. Box 747
Kieber, Robert W., 317 Kirkpatrick Bldg.
Knepper, P. A., Box 747
Kulowski, Jacob, 415 Corby Bldg.
Lau, Gustav A., 217 Kirkpatrick Bldg.
McDaniel, John R., 902 Edmond St.
McDonald, Wilbur P., 301 N. 8th St.
McGlothlan, Arthur B., 821 N. 24th St.
Magnin, Richard L., 216-218 Physicians & Surgeons Bldg.
Martin, John N., Physicians & Surgeons Bldg.
Meluney, S. E., 214 Kirkpatrick Bldg.
Minton, Robert S., 705 Corby Bldg.
Minton, William H., 705 Corby Bldg.
Moen, Berwyn H., 902 Edmond St.
Morroway, James H., State Hospital No. 2
Morse, Marvin, 2702 Faraon St.
Mothershead, John L., 2603 Fredrick
Muench, Albert H., 215 Physicians & Surgeons Bldg.
Mullinix, Orr, State Hospital No. 2
Mundy, Homer F., 2801 Sacramento St.
Nelson, Fred L., 902 Edmond St.
Ness, Carl K., 902 Edmond St.
O'Connor, William B., 219 Kirkpatrick Bldg.
Petersen, H. E., 212 Kirkpatrick Bldg.
Pfeffer, Robert I., 140 Crestview Village
Pifer, Lawrence H., 1302 Faraon St.
Potter, Caryl A., Jr., 301 Physicians & Surgeons Bldg.
Potter, Thompson E., 731 Faraon St.
Redmond, William, 411 Corby Bldg.
Riddell, Richard V., 902 Edmond St.
Rogers, John T., 2502 Ashland Ave.
Rosenthal, Irwin I., 2715 Union
Rost, William B., 3113 Renick St.
Roundy, Collis I., Kirkpatrick Bldg.
Ryan, John H., 301 N. 8th St.
Saferstein, T. Harry, 2903 Sherman St.
Senne, Herbert C., Physicians & Surgeons Bldg.
Senor, Samuel E., 722½ Francis St.
Shevlin, Charles F., 902 Edmond St.
Simmons, Benjamin B., 801½ Francis St.
Smith, Clifton, 2502 Faraon
Stacy, Winton T., 900 Ashland Court
Stallard, Donald J., 902 Edmond St.
Tadlock, Baxter W., 703 S. 13th St.
Tahir, Mohammad, 5008 King Hill Ave.
Thomas, Forrest, State Hospital No. 2
Thompson, F. G., Jr., P. O. Box 747
Timerman, Arthur R., 234 Illinois Ave.
Wachter, Harry E., 212 Kirkpatrick Bldg.
Wadlow, Ernest E., Kirkpatrick Bldg.
Waggoner, Sharon E., 301 Illinois Ave.
Warres, Herbert L., 902 Edmond St.
Weed, Randal W., 824 Edmond St.
Whitsell, John C., 824 Edmond St.
Whitsell, Ora E., 824 Edmond St.
Willumsen, Henry C., P. O. Box 747

BUTLER-RIPLEY-WAYNE COUNTY MEDICAL SOCIETY

Barbour, Marvin R., Poplar Bluff
Baskett, Edgar D., Poplar Bluff
Biggs, Fred J., Jr., Poplar Bluff
Brandon, Walter L., Poplar Bluff
Brookreson, Alton F., Poplar Bluff
Canlas, Emilio M., Poplar Bluff
Clay, Hampson S., Poplar Bluff
Cline, Edward W., Poplar Bluff
Cline, Harold H., Piedmont
Dinelli, Frank E., Poplar Bluff

Engelhardt, Robert C., Poplar Bluff
Gernstetter, Sangwill L., Poplar Bluff
Harwell, J. Lester, Poplar Bluff
Harwell, James L., Poplar Bluff
Henrickson, Hardin M., Poplar Bluff
Henrickson, H. O., Poplar Bluff
Henrickson, William E., Poplar Bluff
Johnson, Frank C., Doniphan
Kneibert, Fred L., Poplar Bluff
Loughead, John R., Poplar Bluff
McPheeters, James W., Poplar Bluff
McPheeters, J. W., Jr., Poplar Bluff
Macauley, Bernard J., Poplar Bluff
Malinoski, Mitchell V., Poplar Bluff
Markel, Arthur D., Poplar Bluff
May, Albert L., Jr., Poplar Bluff
Page, Jesse W., Poplar Bluff
Parker, A. C., Jr., Poplar Bluff
Post, Cyril A., Poplar Bluff
White, Homer E., Naylor
Willis, Norman E., Poplar Bluff

CALDWELL COUNTY
(Grand River Medical Society)

CALLAWAY COUNTY MEDICAL SOCIETY

Baur, Alfred K., Fulton
Brewer, Tom, Fulton
Brown, John J., Fulton
Cremer, William J., Fulton
Crews, Robert N., Fulton
Dixon, C. H., Fulton
Durst, Henry, Fulton
Freund, H. G., Fulton
Gish, Rutledge, Fulton
Hall, Robert G., Address Unknown
Hill, James E., Fulton
Hobbs, George H., Fulton
Hunter, James R., Webster Groves
Johnson, T. L., Fulton
Kepler, Earl C., Fulton
McCubbin, J. Burleigh, Fulton
Nichols, Frank J., Fulton
Price, Robert P., Fulton
Rusk, Earl M., New Bloomfield
Wood, George F., Fulton

CAMDEN COUNTY MEDICAL SOCIETY

Claiborn, Edward G., Camdenton

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY
(Cape Girardeau)

Ashley, Hugh V., 711 Broadway
Ashley, Hugh, Jr., 711 Broadway
Bahn, Charles,
Barnes, Seth S., 1854 Broadway
Blaylock, Richard D., Jackson
Breece, Grady L., Jr., Marble Hill
Campbell, Edward D., 937 Broadway
Cochran, Jo R., 709 Broadway
Cook, Norman L., 663 Sylvan Lane
Crites, Edward, Sedgewickville
Crowe, John T., 937 Broadway
Drace, James J., 903 Bellevue
Elrod, Dennis B., 1912 Broadway
Estes, Albert M., 714 Broadway
Ford, Walter W., Gordonville
Fuerth, Arthur L., R. R. 1
Hall, Frank W., 826 Themis St.
Herbert, Charles T., 824 Good Hope St.
Hoxworth, Gerald M., 120 Sheridan
Jaeger, Joseph N., Jackson
Kasten, Melvin C., 1537 Whitener St.
Keim, John H., 230 N. Sprigg
Kinder, James A., 937 Broadway
Kratz, Paul E., 1912 Broadway
Lovinggood, Thomas A., 649 Sylvan Lane
McDonald, Eugene F., Jackson
McGinty, Charles P., 1912 Broadway
Nunnelly, Gordon M., 937 Broadway
Nussbaum, Paul B., 1758 Broadway
Oehler, William F., 234 N. Middle St.
Otto, Thomas G., 1912 Broadway
Rapp, Harold B., 4032d U.S.A.F. Hospital, Carswell A.F.B., Fort Worth, Texas
Rawlins, Fred E, 1404 Perryville
Reynolds, Garland A., 826 Themis St.
Ridings, Harold D., 1858 Broadway
Ritter, Raymond A., St. John's Hospital
Seabaugh, D. Rusby, 219 N. Pacific
Seabaugh, Dayton I. L., Jackson
Seabaugh, L. R., 219 N. Pacific
Seabaugh, Oda L., 720 South Blvd.
Seabaugh, William O. L., 24 N. Sprigg
Shelby, Mitchell H., 726 Themis St.
Shoss, Milton, 937 Broadway
Sutton, Charles E., 6 S. Fountain
Trolinger, J. H., Jackson
Tygett, Glenn J., 215 N. Sprigg
Wilson, Charles F., 714 Broadway
Wolff, Paul G., 1819 Broadway
Zimmerman, Carl A. W., Oakenwold

CARROLL COUNTY
(Grand River Medical Society)

CARTER-SHANNAN COUNTY MEDICAL

Ottensmeyer, Charles D., Van Buren
Rollins, H. D., Winona

CASS COUNTY
(West Central Missouri Medical Society)

CEDAR COUNTY
(West Central Missouri Medical Society)

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

Anderson, Dwight W., Moberly
Baker, Josephine D., Moberly
Barnett, Floyd A., Paris
Buck, Ulysses G., Rothville
Campbell, James E., Macon
Chute, W. Deward, Moberly
Cohrs, Clarence C., Moberly
Collins, Gretchen D., Macon
Dreyer, Philip V., Huntsville
Eggleston, Donald E., Macon
Fellows, William W., 4200 Cathedral Ave., N.W., Washington, D. C.
Fleming, Jacob W., Jr., Moberly
Fleming, Thomas S., Moberly
Hardy, John W., Sumner
Harms, Florian L., Salisbury
Hasson, Robert, Moberly
Hawkins, George W., Salisbury
Huber, Lasley E., Moberly
Johnson, Edward M., Medical Field Service School c1806, Ft. Sam Houston, Texas
McMurtry, Leonard K., Moberly
Miller, D. Herbert, Veterans Hospital, Muskogee, Oklahoma
Miller, Howard S., Macon
Ragsdale, George M., Paris
Rice, Grover C., Brunswick
Rowlette, A. P., Moberly
Smith, Carl C., Moberly
Streetor, Roderick D., 1332 Blackstone Ave., St. Louis
Stuart, Daniel D., Brunswick
Szymanski, Stanley R., Moberly
Weger, Carl C., Keytesville
Young, Robert H., Moberly

CHRISTIAN COUNTY
(Ozarks County Medical Society)

CLARK COUNTY
(Lewis-Clark-Scotland County Medical Society)

CLAY COUNTY MEDICAL SOCIETY

Baird, J. Edward, Excelsior Springs
Bates, George C., 329 E. Armour Rd., North Kansas City
Boone, Daniel S., North Kansas City
Borklund, Maurice K., 410 Citizens National Bank Bldg., Independence, Kansas
Casady, Gilbert N., Smithville
Chastain, Maurice W., 1908 Erie, North Kansas City
Chiles, David R., Smithville
Cox, William L., Liberty
Dunham, R. H., 2025 Swift, North Kansas City
Dwyer, Reinhardt D., 1806 Swift, North Kansas City
Edwards, Theodore F., 329 Armour Blvd., North Kansas City
Elliott, Wade E., North Kansas City
Fischer, Edward H., 306 E. 21st Ave., North Kansas City
Fogel, Isadore B., 100 Garden Bldg., Kansas City
Fowler, I. Charles, 2025 Swift, North Kansas City
Gauer, Robert J., 4228 Montgall Ave., Kansas City
Gay, Elmer E., Richmond
Goodson, William H., Liberty
Grant, Murray, Liberty
Hendren, Glenn W., Liberty
Hewitt, John H., Excelsior Springs
Hobbs, Earl B., Smithville
Hodge, Robert H., 329 Armour Rd., North Kansas City
Horton, Ray B., P. O. Box 7472, North Kansas City
Houck, Russell M., VA Hospital, Kecoughtan, Va.
Knox, Earl R., 224 Rialto Bldg., Kansas City
Kuenzi, Donald E., Gashland
Langhus, Melvin O., Route 4, North Kansas City
McCormick, James E., 4030 N. Oak St., North Kansas City
McCracken, Samuel R., Excelsior Springs
Mullins, Bernard L., 1806 Swift Ave., North Kansas City
Musgrave, David E., Excelsior Springs
Nicholson, Ralph L., Excelsior Springs
Parker, Robert H., 2005 Fayette, North Kansas City
Pate, O. S., City Hall, North Kansas City
Porter, Russell C., 831 N. Camino Miramonte, Tucson, Ariz.
Robichaux, Eugene B., Excelsior Springs
Robichaux, Eugene C., Excelsior Springs
Sanders, George E., Excelsior Springs
Sawyer, Floyd E., 329 Armour Rd., North Kansas City
Schertz, Truman B., 2005 Fayette, North Kansas City
Schroeder, S. O., Liberty
Spelman, A. E., Smithville
Sportsman, Weldon L., 6700 N. Wyandotte, Route 4, Kansas City
Sprong, Aaron A., VA Hospital, Excelsior Springs
Vinyard, Jack L., 2939 Buchanan St., North Kansas City
Washburn, Walter L., 33rd Station Hosp., APO 69 New York, N. Y.
Waterman, F. M., Liberty
Werner, Dean F., 2025 Swift Ave., North Kansas City
Willoughby, James W., 3390 Albion Ave., Denver, Colo.
Withrow, John B., 2025 Swift, North Kansas City
Zacharias, David L., 6644 N. Oak St., North Kansas City

CLINTON COUNTY MEDICAL SOCIETY

Kimes, Ira D., Cameron
Longfield, Fred J., Lathrop
Luckenbill, Paul T., Plattsburg
Mabrey, John P., Plattsburg
Netherton, George F., Cameron
Spalding, Wilber B., Plattsburg
Wilbur, Ronald E., 1407 13th Ave., N. E., Rochester, Minn.

COLE COUNTY MEDICAL SOCIETY
(Jefferson City)

Amos, James R., 1745 S. National, Springfield
Belden, Edgar A., State Office Bldg.
Bohrer, E. Royse, 322 Jefferson Street
Bruce, James G., 234 Madison
Clark, Kendall A., 515 E. High St.
Cox, William A., 125 E. High St.
Dorris, Richard P., Trust Bldg.
Enloe, Lawrence D., Trust Bldg.
Exon, C. Stuart, 503 E. High St.
Garner, Lynn M., State Division of Health
Guhleman, Henry V., Jr., 130 Medical Arts Bldg.
Gurnee, Landon H., 416 E. High St.
Kanagowa, Harold, Medical Arts Bldg.
Kelly, Marshall W., 507 E. High St.
Klebba, Larry B., P. O. Box 403
Leslie, J. Paul, Central Trust Bldg.
Leslie, J. T., 933 Fairmount
Loyd, Earl L., 515 E. High St.
Loyd, Herlan O., 515 E. High St.
McHaney, John W., 606 E. High St.
McKnelly, William Von, 507 E. High St.
Mansur, Edward E., 2012 N. W. 13th St., Miami 13, Fla.
Matthews, John I., 302 Bolivar
Maxey, Hugh W., 626 Jefferson
Meier, Francis X., 507 E. High St.
Meinershagen, C. W., 138 Forest Place
Ossman, Julian A., 2030 W. Main St.
Richardson, R. G., 421 Lafayette
Sennott, John S., 507 E. High St.
Shull, G. Donald, 521 E. High St.
Stauffer, Harry B., Central Trust Bldg.
Stephan, August P., 98 W. Circle Drive
Stricker, Harold C., 515 E. High St.
Sugarbaker, Everett D., 503 E. High
Summers, Joseph S., Jr., 515 E. High St.
Tanner, Robert H., 1408 Greenberry Rd.

Taylor, Leon A., 129 E. High St.
Tietjen, Frederick O., 213 Jackson
Watts, Byron E., 515 E. High St.

COOPER COUNTY MEDICAL SOCIETY

Abele, William A., Boonville
Beckett, Theodore C., Boonville
Boley, James O., 3200 E. Meyer Blvd., Kansas City
Brown, D. J., Boonville
Chamberlain, Gilbert L., Boonville
Diekroeger, Manuel L., Boonville
Hata, Kaikichi, Boonville
Humphreys, Edward T., Boonville
Sandy, Charles, 4209 W. 70th, Prairie Village, Kan.
Stone, William E., Boonville
Stuart, Byron M., Boonville
Wilcox, Howard L., 4th & Main, Lawrence, Kan.
Winn, G. Warren, Boonville
Ziegler, William H., Boonville

CRAWFORD COUNTY
(Mid-Missouri County Medical Society)

DADE COUNTY
(Barton-Dade County Medical Society)

DALLAS-HICKORY-POLK COUNTY MEDICAL SOCIETY

Barnett, C. H., Bolivar
Brooks, John M., 840 S. Pickwick, Springfield
Griffin, Mary E. P., Buffalo
Griffin, Olin A., Jr., Buffalo
Harrell, Henry J., Morrisville
McCraw, Doyle C., Bolivar
Robinson, George G., Humansville

DAVIESS COUNTY
(Grand River Medical Society)

DEKALB COUNTY
(Grand River Medical Society)

DENT COUNTY
(Mid-Missouri County Medical Society)

DOUGLAS COUNTY
(South Central Counties Medical Society)

DUNKLIN COUNTY MEDICAL SOCIETY

Baldwin, Paul, Kennett
Beal, Homer, Malden
Belsey, Wallace A., Campbell
Croom, Dorwyn W., Malden
Dempsey, D. T., Kennett
Dunmire, George Q., Kennett
Edmondson, Charles T., Malden
English, Wallace D., Cardwell
Fuzzell, Jameso, Kannett
Green, Robert S., Kennett
Hopkins, F. G., Gideon
Linton, C. S., Kennett
Miltenberger, Paul C., Kennett
Mitchell, Samuel E., Malden
Mohler, Ebert M., Jr., Senath
Palenske, Robert L., Hornersville
Park, William E., Cardwell
Peck, Chester R., Jr., Kennett
Rutledge, William J., Campbell
Spence, Elbert L., Kennett
Tarver, Quinton, Kennett
Van Cleve, John D., Malden
Williams, Charles S., Malden
Wilson, Loys C., Kennett
Zimmerman, Joseph A., Kennett

FRANKLIN-GASCONADE-WARREN COUNTY MEDICAL SOCIETY

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Bozzo, Raymond J., Washington
Brenner, Paul A., Owensville
Crawford, Robert M., Sullivan
de la Torre, John J., Sullivan
Denny, Hubert M., Union
Eisenmann, Benjamin P., New Haven
Eyermann, H. Walter, Warrenton
Hoelscher, Harold F., Warrenton
Johnson, Grover C., Marthasville
Keller, Robert M., Owensville
Kitchell, William E., St. Clair
Mays, Frank G., Washington
Muench, Ludwig O., Washington
Pearl, John F., St. Clair
Post, J. P., Washington
Richardson, William R., Union
Royse, Roy P., Sullivan
Ryan, John B., Washington
Schmidt, Charles A., Washington
Schmidt, Herbert H., Washington
Schwartz, Alfred J. C., 4727 N. Malden Ave., Chicago, Ill.
Shaw, Carvel T., Hermann
Steinbeck, Herbert D., Union
Strehlman, Benjamin G., Union
Wepprich, Michael S., Washington
Workman, George M., Hermann

GASCONADE COUNTY
(Franklin-Gasconade-Warren County Medical Society)

GENTRY COUNTY
(Nodaway-Atchinson-Gentry-Worth County Medical Society)

GRAND RIVER MEDICAL SOCIETY
(Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb Counties)

Allen, Erroll W., Carrollton
Bales, Eugene L., Carrollton
Bohnsack, Ralph W., Brookfield
Booth, Herbert R., Hamilton
Breid, Jacob, Trenton
Brennan, Raymond J., Chillicothe
Brewer, Lake, Ridgeway
Bristow, Arthur S., Princeton
Brownfield, Samuel T., Brookfield
Broyles, Watkins A., Bethany
Carpenter, George W., Chillicothe
Carter, Howard, Hamilton
Clark, Chester L., Trenton
Conrad, Joseph, Chillicothe
Cullers, Charles H., Trenton
Daley, Frank R., Hamilton
Dixon, John R., Brookfield
Dowell, Donald M., Chillicothe
Dowell, Horace S., Chillicothe
Duffy, Edgar A., Trenton
Duffy, Oliver F., Trenton
Ellsworth, Willard, Cainsville
Fair, William L., Chillicothe
Fuson, William A., Trenton
Gale, Joseph F., Chillicothe
Gary, George, Marceline
Gearhart, M., Bethany
Grace, Charles M., Chillicothe
Haskell, Ralph E., Norborne
Howell, B. D., Brookfield
Johnson, Glenn D., Maysville
Kimberlin, Herbert C., Trenton
Knopf, Keith, Brookfield
Lambert, Marian, 5314 W. 71st Terrace, Kansas City
Liggett, M. S., Marceline
Lucas, John H., Brookfield
McArtor, Thomas R., Browning
Magill, Joseph S., Milan
Mairs, Edgar J., Trenton
Mandler, George, Chillicothe
Nibbe, Albert F., Bethany
Nixon, Edward E., Gallatin
Parker, John Z., Pattonsburg
Perry, John M., Princeton
Platz, John H., Carrollton
Smith, Robert W., Marceline
Staton, R. Hamilton, Carrollton
Sutherland, Gladys P., Bethany
Sweiger, James H., Maysville
Thompson, Emma A. B., Dumas Apt., Columbia
Vandiver, V. D., Chillicothe
Weston, Ursa C., Galt
Wilson, Fred K., Winston
Witten, David M., Trenton
Zahrt, Frank H., Princeton

GREENE COUNTY MEDICAL SOCIETY
(Springfield)

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Anthony, Dallas, 403 Professional Bldg.
Ashley, Thomas E., 1211 S. Glenstone
Atherton, Mary J., McDaniel Bldg.
Atkinson, Thomas E., Jr., 221 Professional Bldg.
Barber, John J., Walnut Grove
Bonebrake, M. D., 304 Professional Bldg.
Box, E. M., 412 E. Commercial St.
Brown, Alex L., Medical Arts Bldg.
Brown, James T., 724 E. Stanford
Brown, Lyman D., 311½ College
Burkey, Jordan W., 1828 E. Bennett
Busiek, Paul J., 303 Professional Bldg.
Busiek, Urban J., 303 Professional Bldg.
Callaway, Guy D., 801 S. Kickapoo
Callaway, Guy D., Jr., 1211 S. Glenstone
Clarke, Michael J., Morton Bldg.
Clary, William F., 1636 Glenstone
Clawson, James W., Medical Arts Bldg.
Clayton, Edgar L., 109 Professional Bldg.
Coffelt, Kenneth C., 800 Medical Arts Bldg.
Coller, Frederick C., 1211 S. Pickwick
Conrad, Raymond C., 609 Cherry St.
Crawford, Oral B., 215 Professional Bldg.
Cunningham, Darral D., 1715 Boonville
Delzell, William A., 410 McDaniel Bldg.
Dietz, M. Wendell, Burge Hospital
Dillard, Erin M., 103 Professional Bldg.
Dills, Joseph N., 1715 Boonville
Dimond, Edgar A., 1514 Fairway Dr.
Duncan, Robert D., 302 Professional Bldg.
Elkins, Ronald F., 402 Professional Bldg.
Ellis, Francis J., 304 Professional Bldg.
Epps, Curtis, 800 Medical Arts Bldg.
Evans, Ezra L., Jr., 204 Professional Bldg.
Farthing, Fred R., 1234 E. Walnut
Farthing, Gene W., 808 Medical Arts Bldg.
Feller, C. E., 609 Cherry St.
Ferguson, John P., Jr., 1219 S. Clay
Ferrell, Thomas E., Jr., 302 Professional Bldg.
Fessenden, Ersel M., 634 Kingsbury
Fitch, C. H. Max, 1711 Boonville
Focht, Ralph H., Strafford
Francis, William C., 506 Medical Arts Bldg.
Freeman, Hal E., 609 Cherry St.
Fulbright, James H., 1033 E. Walnut
Gentry, Merritt L., 432 Medical Arts Bldg.
German, Walter A., Jr., 1211 S. Glenstone
Glenn, Elmer E., 1102 E. Elm
Glynn, Robert R., 1211 S. Glenstone
Good, James T., 1211 S. Glenstone
Gorelick, David F., 111 Professional Bldg.
Gose, Don F., 302 Professional Bldg.
Hahn, Andrew L., 307 Professional Bldg.
Hall, David W., 2122 Wayland Dr.
Hall, Durward G., 1211 S. Glenstone
Hanan, Ernest B., 675 S. Kickapoo
Hanss, Armand W., 500 Medical Arts Bldg.
H'Doubler, Francis T., 406 Professional Bldg.
H'Doubler, Francis T., Jr., 406 Professional Bldg.
Heimburger, Leroy F., Medical Arts Bldg.
Hogeboom, George W., 208 Professional Bldg.
Hoover, H. Lee., Jr., 208 Professional Bldg.
Horst, Otto C., Medical Arts Bldg.
Horton, James D., 405 Professional Bldg.
Ivy, Henry B., 415 Holland Bldg.
Johnson, George L., Southeast Medical Bldg.
Johnson, Warford B., 220 Professional Bldg.
Johnson, William F., 211 Professional Bldg.
Johnston, Joseph L., 1855 S. Jefferson
Klingner, George M., 1969 E. Sunshine
Knabb, Arthur D., 1630 N. Jefferson
Knabb, Harris, 1630 N. Jefferson
Knabb, Henry F., 1630 N. Jefferson
Knabb, Henry F., Jr., 1630 N. Jefferson
Knabb, Kenneth E., 1630 N. Jefferson
Kolze, Vernon W., 702 Medical Arts Bldg.
Langston, Walter R., 408 Professional Bldg.
Leidinger, Karl J., Republic
Lemmon, George B., 1101 E. Walnut
Lemmon, G. Bruce, Jr., 407 Professional Bldg.
Leslie, James F., 222½ E. Commercial
Litton, Lyle D., Burge Hospital
Lockhart, Charles E., 105 Professional Bldg.
Lowe, Horace A., 700 Medical Arts Bldg.
Lowe, Horace A., Jr., 342 Medical Arts Bldg.
Lurie, Harold H., 2332 Luster Blvd.
McAdoo, Hosea W., 705 Medical Arts Bldg.
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Napper, Marvin L., 403 Professional Bldg.
O'Brien, James A., 525 N. 6th St., Muskogee, Oklahoma
Park, William I., Jr., 209 Professional Bldg.
Penninger, William H., 506 Medical Arts Bldg.
Peterson, Stanley S., 1211 S. Glenstone
Plumlee, William C., 415 Holland Bldg.
Polk, John W., 604 Medical Arts Bldg.
Powell, Edwin M., 115 Professional Bldg.
Prater, Bill G., 223 Professional Bldg.
Rainwater, E. H., 223 Professional Bldg.
Rigney, Levi M., 505 Woodruff Bldg.
Rosen, Max, 608 Medical Arts Bldg.
Russell, Earl D., 1503 S. Glenstone
Schwartz, Eugene J., 301 Professional Bldg.
Schweitzer, Fred C., Jr., 805 Woodruff Bldg.
Sewell, Walter S., 115 Professional Bldg.
Siceluff, Joseph G., 609 Cherry St.
Silsby, Don H., 326 Landers Bldg.
Silsby, Don J., 303 McDaniel Bldg.
Silsby, Harry D., 208 Professional Bldg.
Simpson, Emerson L., 1630 N. Jefferson
Smith, C. Souter, 513 Holland Bldg.
Snead, William H., Jr., 103 Professional Bldg.
Stewart, R. Wendell, 203 Professional Bldg.
Sundstrom, Frank D., 1211 S. Glenstone
Tarrasch, E. L., 623 Woodruff Bldg.
Taylor, William E., Southwest Missouri State College
Thomasson, David D., 1630 N. Jefferson
Tillman, Walter W., Jr., 215 Professional Bldg.
Tsang, John L. K., 1636 S. Glenstone
Turner, Glen O., 307 Professional Bldg.
Upshaw, Paul O., 400 Medical Arts Bldg.
Vail, A. Denton, 407 Professional Bldg.
Wakeman, Jasper N., 626 Woodruff Bldg.
Walsh, William T., P. O. Box 144, Kingwood, W. Va.
Webb, Leslie R., Jr., 401 Professional Bldg.
White, R. Ned, 205 Professional Bldg.
Williams, John W., 201 Professional Bldg.
Williams, John W., Jr., 710 Landers Bldg.
Williams, Robert F., 710 Landers Bldg.
Wise, Gordon F., 215 Professional Bldg.
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Wooldridge, W. E., 107 Professional Bldg.
Yancey, Daniel L., 1211 S. Glenstone

GRUNDY COUNTY
(Grand River Medical Society)

HARRISON COUNTY
(Grand River Medical Society)

HENRY COUNTY MEDICAL SOCIETY

Blackmore, Thomas A., Windsor
Bradshaw, W. D., Clinton
Hollingsworth, Ray S., Clinton
Hughes, Shelby B., Clinton
Jennings, Robert J., Windsor
Jordan, Ray B., Windsor
Riffel, Gordon W., Windsor
Smith, James O., Clinton
Smith, William J., Windsor
Thurber, Claude M., Windsor
Walker, George S., Clinton
Walker, Hugh B., Clinton
Wall, Harvey M., Windsor
Woltzen, Samuel W., Clinton

HICKORY COUNTY
(Dallas-Hickory-Polk County Medical Society)

HOLT COUNTY MEDICAL SOCIETY

Hogan, Frank E., Mound City
Kearney, Elmer F., Oregon
Perry, David C., Mound City
Sweaney, Isaac F., Oregon

HOWARD COUNTY MEDICAL SOCIETY

Allen, William C., Glasgow
Bloom, W. A., Fayette
Dean, Francis D., Fayette
Gardner, Joseph W., Glasgow
Leech, Maurice P., Fayette
Shaw, William J., Fayette
Shaw, William J., Jr., Fayette

HOWELL COUNTY
(South Central Counties Medical Society)

IRON COUNTY
(Mineral Area County Medical Society)

JACKSON COUNTY MEDICAL SOCIETY
(Kansas City)

Aaron, George A., 123½ W. Lexington, Independence
Adams, Noah, 1024 W. Alton, Independence
Adelman, Arthur, 701 E. 63rd St.
Ahlefeld, Charles B., 215 Pershing Rd.
Aisenstadt, E. Albert, 1204 W. 67th St.
Aks, Daniel, 1309 E. 82nd St. Terrace
Allebach, H. K., Research Hospital
Allen, Charles E., 712 Waldheim Bldg.
Allen, Charles H., 1st National Bank Bldg., Independence
Allen, Robert E., 411 Nichols Rd.
Allen, Sylvia, 4635 Wyandotte St.
Allen, William B., 4620 J. C. Nichols Parkway
Alsop, Webb S., Jr., 411 Nichols Rd.
Altomare, Edward P., 2610 E. 63rd St.
Altringer, Arthur N., 305 W. 43rd St.
Altringer, Mary P., 5630 Mission Dr.
Anderson, A. Isadore, 723 W. 45th St.
Anderson, Raymond B., Plaza Time Bldg.
Anderson, Richard W., 21 W. 58th St.
Andrews, Berneil W., 4620 J. C. Nichols Parkway
Andrus, Bailey C., 233 Plaza Medical Bldg.
Appleford, George B., 215 Pershing Rd.
Arms, Arnold V., 4635 Wyandotte
Armstrong, Gene F., 830 Argyle Bldg.
Aschman, Theodore H., 174 Plaza Time Bldg.
Asel, Norman D., Plaza Time Bldg.
Asher, Arthur G., 1220 Professional Bldg.
Atcheson, Bellfield, 5215 Sunset Dr.
Atwell, Floyd C., 4620 J. C. Nichols Parkway
Atwood, John M., 209 W. 66th St.
Aull, John, 1306 Professional Bldg.
Bachmann, Paul L., 1212 W. Truman, Independence
Baer, Alvin J., 1404 Bryant Bldg.
Baker, Philip J., Blue Ridge Cut Off & New Hwy 40
Ball, James E., 1102 E. 47th St.
Ballard, Volney B., 209 Plaza Time Bldg.
Barelli, Pat A., 425 E. 63rd St.
Barnes, Robert H., 6410 W. 75th St., Overland Park, Kan.
Barnett, Gordon P., 6333 Brookside Plaza
Barry, Gerald W., 3601 Troost Ave.
Barry, John W., General Hospital No. 1
Barry, William B., 116 W. 47th St.
Baum, Frank E., 701 E. 63rd St.
Baumeister, Jacqueline M., 4237 Brooklyn
Baumhardt, Edward E., 4635 Wyandotte
Bay, Merrill R., Blue Springs
Becker, Richard R., 4000 Baltimore
Bee, James E., 3520 Broadway
Bell, William F., 18 E. 3rd St., Lee's Summit
Belot, Monti L., 7411 Highway 71 N.W., Parkville
Bennett, James D., 409 E. 63rd St.
Benoit, Hector W., Jr., 503 Plaza Parkway Bldg.
Berenson, Sheldon E., 427 E. 79th St.
Berger, Dan L., 4711 Central
Bergmann, Victor H., 1120 Professional Bldg.
Bernreiter, Michael, 436 Professional Bldg.
Berry, Guy N., 648 W. 59th St.
Berry, Maxwell G., 315 Alameda Rd.
Biggs, Harry L., 63rd & Blue Ridge, Raytown
Bikales, Victor W., 425 E. 63rd St.
Bills, Marvin L., 236 Plaza Time Bldg.
Birenboim, Irvin M., 701 E. 63rd St.
Black, Don A., 924 Professional Bldg.
Black, Eugene C., 1228 Professional Bldg.
Blumenschein, John C., 206 Medical Bldg.
Bolin, N. Venay, 519 Plaza Parkway Bldg.
Bond, Marcus B., 314 Wirthman Bldg.
Boody, Robert J., 519 Plaza Parkway Bldg.
Border, Charles T., 1701 Ruby Drive, Garland, Texas
Bordy, Marvin D., 109 Doctors Bldg.
Borenstine, Joseph, 121 W. 63rd St.
Botwin, Arnold E., 7908 Windsor
Boughnou, Harvey P., 315 Alameda Rd.
Bourke, Timothy S., 1207 Rialto Bldg.
Boutros, Amin, 3112 Linwood
Bowser, John F., Plaza Time Bldg.
Brams, Jack B., 330 Professional Bldg.
Breen, Lois T. (Sister Mary Lois), 3210 E. 23rd St.
Bridgens, James G., Independence Sanitarium, Independence
Brown, Adrian J., 4526 Paseo
Brown, Irwin S., 230 Plaza Time Bldg.
Brown, Robert S., 1103 Grand Ave.
Broyles, Glen H., 1232 Professional Bldg.
Brumm, Lawrence W., 6308 Troost Ave.
Bruner, Robert E., 912 Valentine Road
Brust, Carl H., 6114 Howe Drive, Mission, Kan.
Bryan, William H., Jr., 2204 E. 18th St.
Buckingham, William, 314 Professional Bldg.
Buckner, Robert C., 403 Plaza Parkway Bldg.
Budke, Harold A., 306 E. 12th St.
Buhler, Victor B., St. Joseph's Hospital
Bunting, Williston P., 305 W. 43rd St.
Burns, Beryl I., 5421 Wyandotte
Burns, Jonathan E., 530 S. George, Charles Town, W. Va.
Butcher, Robert W., 8236 Tracy
Byers, Philip L., 4635 Wyandotte
Caffrey, Raymond J., 713 Main St., Grandview
Caldwell, John K., 1036 Argyle Bldg.
Callaway, Luther M., 306 E. 12th
Calovich, Emery R., 4620 J. C. Nichols Parkway
Campbell, Frederick B., 1210 Professional Bldg.
Campbell, John G., 1210 Professional Bldg.
Carbaugh, Glenn C., 2004 Bryant Bldg.
Carduff, Jay J., 1220 E. 31st St.
Carlson, Hjalmar E., 1316 Professional Bldg.
Carmichael, Francis A., Jr., 170 Plaza Time Bldg.
Carrier, Edson C., 315 Alameda Rd.
Casebolt, Buford T., K. C. General Hospital No. 1
Casebolt, Milton B., 4000 Baltimore
Casford, Ralph S., 315 Alameda Rd.
Cashman, John W., 535 Argyle Bldg.
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Castles, John E., 1002 Argyle Bldg.
Cavaness, Ernest W., 1010 Neptune Dr., Leucadia, Calif.
Centner, Paul J., 1000 Professional Bldg.
Chambers, James Q., Jr., 4620 J. C. Nichols Parkway
Chapman, Arthur H., 1132 Professional Bldg.
Chapman, Samuel B., 830 Argyle Bldg.
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Clark, Irving H., 5801 Kingslee Dr., Hickman Mills
Clasen, Arthur C., 4620 J. C. Nichols Parkway
Cline, Merle A., 1002 Argyle Bldg.
Clinger, John M., Jr., 4000 Locust St.
Coburn, Donald F., 221 Plaza Time Bldg.
Cochran, Thomas E., Jr., 4218 W. 55th St.
Cochrane, Joseph J., 200 Plaza Medical Bldg.
Cockerell, Sanford F., 11037 Winner Rd., Independence
Coffey, Ralph R., 1324 Professional Bldg.
Coffin, Theodore A., 915 Professional Bldg.
Cohen, Harry K., 318 Argyle Bldg.
Cohen, Hilliard, Menorah Hospital
Colglazier, Mary C., 3317 E. 43rd St.
Colom, George A., 425 E. 63rd St.
Comboy, Lawrence J., 604 W. Maple, Independence
Connell, Evan S., 1408 Commerce Bldg.
Conover, Charles C., Trinity Lutheran Hospital
Cooper, John H., 1230 Argyle Bldg.
Cooper, Leo F., 1220 E. 31st St.
Cortner, Mary C., 4526 Paseo
Counsell, Chester M., 708 W. 17th St.
Cowherd, Joseph B., 6247 Brookside
Cox, Kenneth E., 4635 Wyandotte
Cramer, Quentin, 1226 Rialto Bldg.
Culbertson, William F., 5111 Wornall Road
Cummins, Walter F., 1612 Professional Bldg.
Curran, Edward J., 1805 Federal Reserve Bank Bldg.

Curran, Kevin E., 1805 Federal Reserve Bank Bldg.
Curran, Maurice D., 1805 Federal Reserve Bank Bldg.
Cutliff, Daniel J., 1222 McGee
Dann, David S., 701 E. 63rd St.
Darrow, Robert S., 2625 W. Paseo
Davis, Herbert V., 4620 J. C. Nichols Parkway
Davis, Jack M., Raytown
Davis, John J., 610 Professional Bldg.
Davis, Kenneth A., 231 W. 47th St.
Davis, Richard E., 1010 Professional Bldg.
Davis, Robert C., 820 Professional Bldg.
Day, Cameron B., 2203 E. 68th St.
Decker, Albert I., 3000 W. 73rd St.
DeMaria, Peter F., St. Joseph Hospital
DeMott, John D., 1405 Bryant Bldg.
DeMotte, John A., 249 Plaza Medical Bldg.
Dennie, Charles C., 1524 Professional Bldg.
Deweese, Everett R., 1010 Rialto Bldg.
Dickson, Frank D., 4312 Mill Creek Parkway
Diveley, Rexford L., 4312 Mill Creek Parkway
Dixon, Otto J., 1533 Professional Bldg.
Dixon, Vewiser L., 2204½ E. 18th St.
Dlabal, Luke J., 1210 Ash Ave., Independence
Doane, William L., 1102 130th St., Grandview
Dodge, Mark, 4635 Wyandotte
Dodge, Milton, 701 E. 63rd St.
Dorsch, Ervin H., 10912½ Winner Road, Independence
Douglass, Daniel D., 410 Professional Bldg.
Downey, James W., 425 E. 63rd St.
Drake, Roy F., 1032 Professional Bldg.
Draney, Thomas E., 4526 Paseo
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Drowns, Bruce V., 1524 Professional Bldg.
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Underwood, Johnson, Jr., 1600 Professional Bldg.
Underwood, Ross H., 1109 Bryant Bldg.
Unger, Harold, 106 Doctors Bldg.
Upsher, Albert E., 909 Argyle Bldg.
Valentine, Herbert S., 1124 Professional Bldg.
VanBiber, James T., 317 W. Kansas Ave., Independence
VanBuskirk, William C., 1416 Professional Bldg.
VanDel, Dwight T., 701 E. 63rd St.
Vilmer, Charles, 1216 Professional Bldg.
Vincent, Jack C., 701 E. 63rd St.
Virden, C. Edgar, 700 Professional Bldg.
Virden, Herbert H., 700 Professional Bldg.
Voth, Harold W., 201 Plaza Bldg.
Wade, Frederick E., 202 Professional Bldg.
Wakefield, Franklin, Jr., 2004 Bryant Bldg.
Walker, James C., 318 Professional Bldg.
Walker, John W., 830 Argyle Bldg.
Wall, Arthur H., 153 Santa Anita, Sierra Madre, Calif.
Wall, Harry C., 1116 Professional Bldg.
Wallace, Frank B., Rialto Bldg.
Walthall, Damon O., 315 Nichols Rd.
Ward, Robert L., 4126 St. John
Watson, Ethel, 403 First National Bank Bldg., Independence
Waxman, David, 4802 Prospect
Waxman, Jane Z., 4802 Prospect
Webster, Joseph G., 403 Plaza Parkway Bldg.
Weiford, Edward C., 320 W. 47th St.
Welker, Joseph E., 834 Professional Bldg.
Weltscheff, Christo A., 315 Nichols Rd.
Werner, Franklin C., 522 Professional Bldg.
Wheeler, John H., 411 Nichols Rd.
White, Charles H., 4125 Brookside, Mission, Kan.
White, George A., 729 Shukert Bldg.
White, Stoughton F., 4620 J. C. Nichols Parkway
Whiteman, John R., 6314 Brookside Plaza
Whitman, Doyle C., 1003 Sharp Bldg.
Whitmore, J. Stewart, 8816 Fairway
Wien, Irving A., 321 Argyle Bldg.
Wilhelm, Warren F., 710 Professional Bldg.
Wilkinson, Everett A., 1332 Professional Bldg.
Williams, Anderson J., Jr., 2311 E. 19th
Williams, Delon A., 806 Professional Bldg.
Williams, Frank R., 1227 Roanoke, Springfield
Williams, Joseph C., Jr., 423 E. 63rd St.
Williams, Luke E., 2201 E. 27th St.
Williams, Robert A., 5 Wood St., Phillips, Texas
Williams, Starks J., 2462a Brooklyn Ave.
Williams, Vincent T., 836 Argyle Bldg.
Willits, Lyle G., 1515 Professional Bldg.
Willoughby, Jean B., 5905 Main St.
Wilson, Clifford C., 217 Plaza Time Bldg.
Wilson, Hester J., 233 Plaza Time Bldg.
Winer, Herbert J., General Hospital No. 1
Winkelman, Esther B., 7449 Broadway
Winston, Bernard H., 324 Professional Bldg.
Wise, George W., 4620 J. C. Nichols Parkway
Withers, Orval R., 4620 J. C. Nichols Parkway
Wolf, Jack W., 409 E. 63rd St.
Wood, Laurence E., Plaza Time Bldg.
Woods, Harold V., 10901 Winner Rd., Independence
Woods, Walton C., Lake City Arsenal, Independence
Wortmann, Robert F., 423 E. 63rd St.
Wright, R. Paul, 1324 Professional Bldg.
Wu, William Q., 314 Doctors Bldg.
Young, Calvin C., Jr., 830 Argyle Bldg.
Young, James E., 4635 Wyandotte
Young, Jesse W., 1401 Southwest Blvd., Kansas City, Kan.
Zellermayer, Jacob, 212 Doctors Bldg.
Ziegler, Allen M., 320 W. 47th St.
Ziegler, Dewey K., 425 E. 63rd St.
Zimmerman, William H., 11½ E. First St., Fort Scott, Kan.
Zoglin, Nathan M., 927 Argyle Bldg.
Zuber, Harold V., 600 Professional Bldg.

JASPER COUNTY MEDICAL SOCIETY

(Joplin)

Alberty, Omer L., Carl Junction
Barlow, Donal E., Frisco Bldg.
Barnett, Norman H., 701 First National Bldg.
Birsner, Frank H., 1717 River, Carthage
Black, Mervin H., 516 Frisco Bldg.
Blanke, Otto T., 725 Frisco Bldg.
Burch, John E., 804 Frisco Bldg.
Butterworth, Nelson S., 910 Kensington Rd.
Byrd, Homer E., Carthage
Chesney, George W., 831 N. Pearl
Cohle, Richard R., 116 W. 3rd St., Carthage
Collins, Joe E., 225 Frisco Bldg.
Craig, Irwin T., 829 Frisco Bldg.
Crawford, Archie L., 631 Frisco Bldg.
Crispell, Lawrence S., 6th & Pearl Ave.
Curl, Howard, 410 Jackson St.
DeTar, B. E., 410 Jackson St.
DeTar, B. E., Jr., 410 Jackson St.
Douglas, John W., 32nd & Oak Ridge
Douglass, Daniel D., Address unknown
Douglass, Jesse E., 3427 W. Coleman Rd., Kansas City
Eliscu, Juliette M., 2002 Jackson
Ferguson, L. H., Jr., 2926 Grand
Ferguson, Ralph L., Frisco Bldg.
Ferguson, Robert M., Webb City
Grantham, Samuel A., Jr., 420 Byers
Graves, F. Burton, Frisco Bldg.
Hall, Marvin F., 622 Frisco Bldg.
Hamilton, Eugene H., 325 Frisco Bldg.
Holtzman, Samuel, 811 Frisco Bldg.
Hornback, Edward R., 215 Frisco Bldg.
Howard, Walter M., 301 Frisco Bldg.
Hurst, W. W., First National Bldg.
Isbell, Charles H., Carthage
James, Edward D., 710 N. Byers
James, Robert M., 504 Jackson
Jeans, Virgil, 511 Joplin National Bank Bldg.
Kiehl, Katharine, 410 Jackson St.
Kirschman, Robert E., 215 Frisco Bldg.
Koehler, John W., Frisco Bldg.
Kuhn, John R., Jr., 321 Frisco Bldg.
Laney, Ronald L., P. O. Box 115, Vista, Calif.
McIntire, Emery J., 417 S. Main St., Carthage
McNew, William T., Carthage
McPike, Lloyd H., 607 Frisco Bldg.
Mack, Mary L., Address unknown
Maddox, John D., 6th & Pearl Sts.
Mitchell, Ernest, Route 1, Goodman
Myers, Roy E., 623 Sergeant
Paddock, Charles S., Frisco Bldg.
Papp, Sandor D., Frisco Bldg.
Patterson, Donald R., First National Bldg.
Patterson, Grover S., 506 S. Main, Carthage
Poor, Carl W., Neosho
Post, Winfred L., 617 Joplin St.
Putnam, John A., Carthage
Rosenthal, Frances E., 724 Frisco Bldg.
Saylor, Robert K., 1008 Pembrook Rd., Cleveland Heights 21, Ohio
Schoeberl, C. B., Frisco Bldg.
Schulte, G. A., 2125 Jackson
Scorse, Sidney W., Frisco Bldg.
Simmons, Leroy, Sarcoxie
Sims, John L., 201 N. Jackson Ave.
Smith, Roland T., 426 N. Pearl
Smith, William R., 304 Grant, Carthage
Stormont, Riley M., Webb City
Van Urk, Jules B., 414 Grant, Carthage
Walker, Paul W., Frisco Bldg.
Walkup, Thomas E., 321 Frisco Bldg.
Webster, Roger W., 369 Crest Drive, San Jose, Calif.
Wetzel, Fred S., Jr., 202 W. Fourth, Carthage
Whitten, M. Foster, 338 Grant, Carthage
Wieman, Harry K., 718 Frisco Bldg.
Wilson, Alice H., 1923 Sergeant
Wood, George H., 304 Grant, Carthage
Wooldridge, Bart F., 707 First National Bldg.
Wright, George W., 222 S. Webb, Webb City
York, William B., Sarcoxie

JEFFERSON COUNTY MEDICAL SOCIETY

Allbee, Roger H., Crystal City
Bolgar, Bertalan, Festus
Commerford, James J., Crystal City
Donnell, Harold E., DeSoto
Donnell, Robert H., Crystal City
Donnell, Thomas A., DeSoto
Edwards, T. Burton, Cedar Hill
Edwards, Waldo B., 11 N. Taylor, Kirkwood (22)
Fallet, Charles E., DeSoto
Hopson, George, DeSoto
Kozal, Francis L., Crystal City
Mayfield, James L., Crystal City
McKinstry, Karl V., DeSoto
Reich, Oliver F., Kimmswick
Rice, Carl E., Hillsboro
Rutledge, John F., Crystal City
Senn, Emmett J., Herculaneum
Yoskit, Harry, Festus

JOHNSON COUNTY MEDICAL SOCIETY

Cooper, R. Lee, Warrensburg
Damron, Oscar H., Warrensburg
Grove, Gulph W., Knob Noster
Harkness, Harry, Warrensburg
Holmes, David R., Warrensburg
Johnson, Charles S., Warrensburg
Jones, Keith D., Warrensburg
Lederer, Charles M., Warrensburg
Maxson, T. Reed, Warrensburg
Patterson, William R., Warrensburg
Rawlins, Kelly, Holden

KNOX COUNTY
(North Central Counties Medical Society)

LACLEDE COUNTY
(Mid-Missouri County Medical Society)

LAFAYETTE-RAY COUNTY MEDICAL SOCIETY

Best, Robert, Higginsville
Brady, Hugh S., Concordia
Brasher, Ben H., Lexington
Buehrer, Cletus E., Lawson
Cook, Thomas B., Richmond
Cope, Joseph S., Lexington
Crozier, Franklin A., Richmond
Devault, George K., Richmond
Fulkerson, Wilbur E., Higginsville
Goldberg, Isadore E., Braymer
Greene, Luther D., Richmond
Griffith, Harry M., Richmond
Johnson, M. C., Richmond
Kelling, Douglas G., Waverly
Kelling, George A., Waverly
Kelling, Jordan, Waverly
Koppenbrink, Walter E., Jr., Higginsville
Lissack, Edmund, Concordia
Liston, Odus, Oak Grove
Martin, Joseph L., 3201 USAF Hospital, Eglin Air Force Base, Fla.
Martin, Wilfred E., Odessa
Nisbet, Eliga B., Odessa
Payne, Bryan T., Lexington
Riley, Ralph W., Lexington
Ryland, Caius T., Lexington
Schooley, Renich C., Odessa
Ward, Joe, Lexington
Williams, John W., Oak Grove

LAWRENCE COUNTY
(Ozarks County Medical Society)

LEWIS-CLARK-SCOTLAND COUNTIES MEDICAL SOCIETY

Bridges, James R., Kahoka
Davis, Landis Y., Canton
Ellery, William L., La Grange
Jennings, Perry W., Canton

LINCOLN-ST. CHARLES COUNTY MEDICAL SOCIETY
(St. Charles)

Behan, Lawrence G., 25 E. Wright St., Pensacola, Fla.
Berry, Paul T., Troy
Canty, Eugene J., R. R. 1
Clay, Calvin, 106 Washington St.
Creech, Joseph C., Troy
Crider, Russell J., St. Charles Hotel Bldg.
Damron, Edward O., Elsberry
Fleming, Robert J., 114 N. Main
Greene, Maurice L., 821 Quince Ave., McAllen, Texas
Hetlage, Louis P., Troy
Hicks, Edward A., Troy
Jenkins, Joseph M., 117 S. Main
Kister, George E., 818 N. Second
Klink, Lon B., 9089 Wrenwood Lane, Brentwood 17
McIntire, Landon R., 117 S. Main St.
Muschany, Norman K., Troy
Neubeiser, Ben L., 206 Washington
Penn, Robert M., Silex
Poggemeier, William H., Jr., 200 Clay St.
Randall, Don Q., 207 N. 5th St.
Rother, Paul H., 114 N. Main St.
Schneider, Vincent A., 207 N. 5th St.
Towers, Orville W., 114 N. Main St.
Weyrens, F. P., 207 N. Fifth St.

LINN COUNTY
(Grand River Medical Society)

LIVINGSTON COUNTY
(Grand River Medical Society)

McDONALD COUNTY
(Ozarks County Medical Society)

MACON COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

MADISON COUNTY
(Mineral Area County Medical Society)

MARIES COUNTY
(Mid-Missouri County Medical Society)

MARION-RALLS-SHELBY COUNTY MEDICAL SOCIETY
(Hannibal)

Archer, Perry C., Shelbyville
Birney, William P., 1003 Broadway
Brown, John E., Perry
Burns, Francis R., 226 Broadway
Canella, John M., 707 Broadway
Chilton, James C., 500 Broadway
Ellis, Sam T., Route 2
Francka, W. F., B & L Bldg.
Goodrich, Howard B., Box 1383, Winter Park, Fla.
Greene, Harry L., Holmes Bldg.
Hamlin, Wyeth, Palmyra
Hardesty, Joel W., Holmes Bldg.
Hoerchler, T. J., Shelbina
Hornback, George A., 500 Broadway
Johnson, Charles R., Monroe City
Kibbe, John H., Monroe City
Landau, Daniel B., B & L Bldg.
Lanning, Robert J., B & L Bldg.
Levine, Ervan L., Vandalia
Lucke, Eugene M., Court House
Murphy, Bernard L., 2000 Crescent Drive
Reichman, John J., 1001 Broadway
Roller, Merrill J., B & L Bldg.
Smith, Ulysses S., Trust Bldg.
Smith, William J., 507 Hannibal Trust Bldg.
Strong, Richard M., 115 N. 5th St.
Sultzman, Francis E., 115 N. 5th St.
Sweets, Henry H., Jr., 1506 Market St.
Walterschied, John H., 508 Broadway
Well, J. W., Palmyra

MERCER COUNTY
(Grand River Medical Society)

MID-MISSOURI COUNTY MEDICAL SOCIETY
(Phelps-Crawford-Dent-Pulaski-Maries-Laclede Counties)

Bass, B. J., Salem
Baumann, A. R., Steelville
Breuer, Robert E., Newburg
Butts, James D., Rolla
Carnahan, C. E., Bourbon
Carrington, Howard W., Lebanon
Casey, Shederic A., Lebanon
Crosby, Alice S., Salem
Davis, Harry H., Rolla
Doubek, John C., Jr., 1233 Laney Del Lane, Kirkwood (22)
Drake, Avery A., Rolla
Elders, Frank A., Jr., Cuba
Feind, Earl E., Rolla
Fisher, George E., Lebanon
Froelich, Rae W., Lebanon
Giem, Ross N., Rolla
Grosskreutz, Joseph A., St. James
Hammler, Christiana V., St. James
Hart, Martin M., Salem
Hope, James L., Lebanon
Hughes, Edgar O., Dixon
Hunt, Lloyd H., Salem
Hurst, Ben B., Lebanon
Irwin, William F., Leasburg
Jenkins, Paul A., Lebanon
Johnson, Ferrell H., Lebanon
Kimball, Ireland W., Salem
Lindsay, John W., Conway
Lytle, William R., Rolla
McDonough, Robert C., St. James
Miller, Clyde S., Waynesville
Mitchell, Roy E., Salem
Myers, James M., Rolla
Peckham, John W., 327 Baker St., St. Louis (19)
Russell, Barbara E., Rolla
Scott, Elijah A., St. James
Siniscal, A. A., Rolla
Stricker, Emil A., St. James
Summers, Jacob H., Lebanon
Underwood, M. K., Rolla
Walden, Richard, Bourbon
Weeks, George R., Lebanon

MILLER COUNTY MEDICAL SOCIETY

Allee, Warren L., Eldon
Buehler, Carl T., Jr., Eldon
Shelton, Edward O., Eldon

MINERAL AREA COUNTY MEDICAL SOCIETY
(St. Francis-Iron-Madison.Washington-Reynolds-Ste. Genevieve Counties)

Appleberry, Charles H., Flat River
Bull, Ben M., Ironton
Carleton, Charles E., Jr., Farmington
Clapsaddle, Clare J., Ste. Genevieve
Cresswell, George F., Potosi
Crouch, F. Richard, Farmington
Evans, Albert L., Bonne Terre
Farrar, C. B., Flat River
Foster, Jack L., Desloge
Gaebe, Harold C., Desloge
Gay, George, Ironton
Grossman, Marvin, Fredericktown
Harland, R. E., Ironton
Haw, Marvin T., Jr., Bonne Terre
Hoctor, Emmett F., Farmington
Huckstep, Robert A., Farmington
Hunt, John W., Jr., Leadwood
Jones, Paul L., Flat River
Karraker, Alvan G., Farmington
Lanning, Richard C., Ste. Genevieve
Lanning, Robert W., Ste. Genevieve
Menne, Marvin C., Ironton
Michaelis, Charles E., Fredericktown
Mullen, Jack, Bonne Terre
Roebber, Harry M., Bonne Terre
Sexauer, Arthur E., Ste. Genevieve
Slaughter, Shelby C., Fredericktown
Taylor, Byron H., Jr., Flat River
Taylor, Van W., Bonne Terre
Watkins, George L., Jr., Farmington

MISSISSIPPI COUNTY
(SEMO County Medical Society)

MONITEAU COUNTY MEDICAL SOCIETY

Burke, John P., Jr., 1122 Los Arboles Rd., N.W., Albuquerque, N. Mex.
Fulks, Richard B., California
Gallagher, Lionel M., California
Kibbe, Edgar A., California
Latham, Kenyon S., California

MONROE COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

MONTGOMERY COUNTY MEDICAL SOCIETY

Anderson, Elmer J. T., Montgomery City
Byland, Samuel J., Wellsville
Helm, James O., New Florence
Hirsch, Albert, Middletown

MORGAN COUNTY MEDICAL SOCIETY

Gunn, Aubrey J., Versailles
Gunn, Jack, Versailles
Kauffman, Ruth, Versailles
Lyle, Robert R., Versailles
Washburn, J. Loren, Versailles

NEW MADRID COUNTY
(SEMO County Medical Society)

NEWTON COUNTY
(Ozarks County Medical Society)

NODAWAY-ATCHINSON-GENTRY-WORTH COUNTIES MEDICAL SOCIETY

Bare, Edward F., Tarkio
Bauman, Henry C., Maryville

Bell, Charles T., Maryville
Blacklock, David E., King City
Byland, Benjamin F., Maryville
Carlin, Albert L., Stanberry
Carpenter, Wallace, Rock Port
Cossins, Carlos E., State Hospital No. 2, St. Joseph
Dunshee, Robert E., Maryville
Humberd, Charles D., Barnard
Imes, Elvin D., Maryville
Jackson, William R., Maryville
Kirk, Charlie W., Hopkins
Matteson, Frank B., Grant City
Murphy, Maurice J., Fairfax
Niedermeyer, Edward L., Tarkio
Ochs, Randal N., Fairfax
Rose, Frank H., Albany
Settle, Emmett B., Rock Port
Wempe, G. Raymond, Maryville

NORTH CENTRAL COUNTIES MEDICAL SOCIETY

(Adair-Schuyler-Knox-Sullivan-Putnam Counties)

Cramb, Arthur B., 711 C. E. Orange, Lakewood, Fla.
English, Milton T., Jr., Kirksville
Freeman, Spencer L., Kirksville
Gerwig, Henry E., Downing
Hart, Pearl V., Coatsville
Henry, Clifford E., Kirksville
Holman, Jurney H., Unionville
Hudson, G. R., Kirksville
Humphrey, Henry M., Brashear
Jones, John B., Kirksville
Luman, Frank E., Edina
Montgomery, John S., Milan
Nulton, Ida M., Lancaster
Rosenthal, Louis M., 5349 Ferry Drive, Tucson, Ariz.
Stickler, Ralph O., Kirksville
Sullivan, William J., V. A. Hospital, Davis Park, Providence 8, R. I.
Tarvydas, Francis, Edina
Wimp, J. J., Kirksville

OREGON COUNTY

(South Central Counties Medical Society)

OSAGE COUNTY

(Unorganized)

OZARK COUNTY

(South Central Counties Medical Society)

OZARKS COUNTY MEDICAL SOCIETY

(Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald Counties)

Aubin, Francis W., Branson
Bennett, Joseph D., Branson
Blankenship, George W., Anderson
Bowman, Melvin C., Neosho
Brasher, Charles A., Mount Vernon
Burney, Wallace S., Miller
Capetti, Alex P., Aurora
Carter, James R., Neosho
Coffman, Esther E. L., 4139 Connecticut St., St. Louis (16)
Cohnberg, Rosellen E., Monett
Cottrell, Wilson P., Reeds Spring
Cowan, R. D., Aurora
Davis, Paul C., Neosho
Donley, Robert R., Monett
Edwards, Francis L., Monett
Eller, Byron H., 430 Pitsanuloke Rd., Bangkok, Thailand
Evans, Harry T., Branson
Glover, Kenneth, Mount Vernon
Graves, Arthur J., Mount Vernon
Hellweg, Charles E., Mount Vernon
Holmes, Lemuel I., Miller
Imes, Clifford H., 5539 Gravois Ave., Los Angeles, Calif.
Kerr, Frank T., Monett
Lamson, Roy C., Neosho
Lentz, Harold C., Neosho
McCallum, A. J. C., Aurora
Magness, William C., Branson
Maness, Charles E., Neosho
Maples, Floyd H., Mount Vernon
Mickel, Arthur A., 940 Main St., Fortuna, Calif.
Newman, Mary Jane N., Cassville
Reynolds, James R., Neosho
Roper, Stanley D., Ozark
Royce, J. J., Noel
Russell, James M., Monett
Shumate, L. St. Clair, Reeds Spring
Spears, Charles A., Pierce City
Stokes, Julius B., Excelsior Springs
Sweany, Henry C., Mount Vernon
Taylor, Leo T., Neosho
Threadgill, Jesse M., Forsyth
Whitehead, Frank F., Neosho
Wommack, Fred L., Crane
Yates, J. Lewis, Mount Vernon

PEMISCOT COUNTY MEDICAL SOCIETY

Aquino, Philip J., Caruthersville
Beecher, Sheldon B., Caruthersville
Brown, Charles W., 5351 Delmar Blvd., St. Louis
Cain, Charles F., Caruthersville
Carlin, Eugene J., Steele
Chapman, J. R., Steele
Cook, O. W., Caruthersville
Cooke, Francis W., Caruthersville
Cooke, James K., Jr., Hayti
Cooper, Lawrence E., 1274 Hanton, Fort Myers, Fla.
Denton, Levi D., Hayti
Duckworth, Gordon L., Jr., Hayti
Hensley, Daniel R., Wardell
Kaiser, Clarence D., Hayti
Lamb, Woodrow M., Caruthersville
Limbaugh, Walter R., Hayti
McCoy, Warren R., Caruthersville
McKaskle, Clarence W., Caruthersville
Morris, Clyde L., Caruthersville
Phipps, George W., Caruthersville
Poff, Joseph H., Caruthersville
Price, Harry J., Hayti
Ricketson, George M., *USS Badoeng Strait* (CUE 116), FPO, San Francisco, Calif.
Shanahan, Eugene R., Caruthersville
Shirey, Arnold G., Hayti
Smith, Robert S., Portageville
Taylor, Edward L., 2239 Union Ave., Memphis, Tenn.
Turner, James H., Dexter
Turner, William F., Dexter

PERRY COUNTY MEDICAL SOCIETY

Bredall, Jerome J., Perryville
Carron, Oscar A., Perryville
DeGenova, G. H., Ste. Genevieve
Fairchild, James F., Perryville
Feltz, L. W., Perryville
Fischer, Theodore, Altenburg
Grayson, Richard R., Perryville
Legner, Stanley G., Perryville
Lutkewitte, Joseph F., St. Marys
Miller, Oliver J., Cape Girardeau
Quintana, Manuel M., Perryville
Riley, Fred P., Perryville
Utterman, William F., Perryville

PETTIS COUNTY MEDICAL SOCIETY

(Sedalia)

Beckemeyer, William A., 120 W. 5th St.
Bess, William E., 210½ S. Ohio St.
Boger, James W., 120 W. 5th St.
Brady, Charles H., 205 Ilgenfritz Bldg.
Campbell, Albert J., 312½ S. Ohio St.
Carlisle, John B., 314 S. Ohio St.
Dyer, David P., 301 Sedalia Trust Bldg.
Edwards, D. R., 107½ S. Ohio St.
Ewert, J. O., 412½ S. Ohio St.
Fisher, Stanley D., 500½ S. Ohio St.
Gonser, Karl B., 101 S. Ohio St.
Hite, Henry A., Green Ridge
Hopkins, Thomas J., Fifth & Ohio
Lamy, John E., 509 W. Broadway
Lemire, Robert W., 111 W. 4th St.
Long, Frank B., 322 Gordon Bldg.
Lowe, Alvin L., 1425 S. Grand
Maddox, Albert R., 116½ W. Main
Murray, John W., Warsaw
Osborne, Charles D., 710 W. Broadway
Parkhurst, Charles L., Houstonia
Proctor, Donald C., 418½ S. Ohio St.
Rhodes, Euhlan L., 717 W. 6th St.
Rodeman, John M., 322 Gordon Bldg.
Siegel, Carl D., 1216 W. 18th St.
Siegel, P. V., Smithton
Snavely, Edmund C., 202½ S. Ohio St.
Stauffacher, C. Gordon, 101½ S. Ohio St.
Stewart, Robert H., Bothwell Hospital
Walker, William E., LaMonte
Walter, Archie L., 120 W. 5th St.

PHELPS COUNTY

(Mid-Missouri County Medical Society)

PIKE COUNTY MEDICAL SOCIETY

Andrae, Robert L., Louisiana
Barrymore, Eugene, Bowling Green
Beckman, Donald E., Clarksville
Biggs, James B., Bowling Green
Cunningham, Eric A., Louisiana
Hooker, John H., 5420 Taney Ave., Alexandria, Va.
Johnson, Q. Ray, Jr., Louisiana
Lewellen, Charles H., Louisiana
Lewellen, Charles P., Louisiana
Martin, W. Joe, Louisiana
Middleton, John W., Louisiana
Scott, Clive D., Louisiana
Treadway, W. W., Silex
Wilcoxen, William B., Bowling Green

PLATTE COUNTY MEDICAL SOCIETY

Calvert, Lewis C., Weston
Durham, Silas L., Dearborn
Jennings, Ethlyn C., R. D. 4, North Kansas City
Parker, H. Graham, Platte City
Robinson, John A., Edgerton
Thurman, H. C., Parkville

POLK COUNTY

(Dallas-Hickory-Polk County Medical Society)

PULASKI COUNTY

(Mid-Missouri County Medical Society)

PUTNAM COUNTY

(North Central Counties Medical Society)

RALLS COUNTY

(Marion-Ralls-Shelby County Medical Society)

RANDOLPH COUNTY

(Chariton-Macon-Monroe-Randolph County Medical Society)

RAY COUNTY

(Lafayette-Ray County Medical Society)

REYNOLDS COUNTY

(Mineral Area County Medical Society)

RIPLEY COUNTY

(Butler-Ripley-Wayne County Medical Society)

ST. CHARLES COUNTY

(Lincoln-St. Charles County Medical Society)

ST. CLAIR COUNTY

(West Central Missouri Medical Society)

ST. FRANCOIS COUNTY

(Mineral Area County Medical Society)

STE. GENEVIEVE COUNTY

(Mineral Area County Medical Society)

ST. LOUIS MEDICAL SOCIETY

(St. Louis)

Abell, Walter E., 2253 S. 39th St. (10)
Abrams, Morris, 4405 W. Pine Blvd. (8)
Ackerman, Lauren V., 600 S. Kingshighway (10)
Adler, Benard C., 500 N. Skinker Blvd. (5)
Agress, Harry, 1045 Missouri Theatre Bldg. (3)
Ahern, Archibald M., 3915 Watson Rd. (9)
Ahlering, George H., 4952 Maryland Ave. (8)
Aitken, Louis F., 502 Beaumont Medical Bldg. (8)
Albrecht, Franklin H., 245 Union Blvd. (8)
Alden, Arthur M., 537 Frisco Bldg. (1)
Aldrich, James T., 2621 Franklin Ave. (6)
Alexander, Harry L., Barnes Hospital (10)
Allen, Duff S., 18 S. Kingshighway (8)
Allen, Henry C., 212 Clayton Medical Bldg. (5)
Allen, Hollis N., 404 Missouri Theatre Bldg. (3)
Allen, Melvin A., 8000 Seminole Dr. (5)
Allen, Willard M., St. Louis Maternity Hospital (10)
Allen, William E., Jr., 720 N. Sarah St. (8)
Altheide, J. Paul, 714 University Club Bldg. (3)
Alvis, Bennett Y., 100 N. Euclid Ave. (8)
Alvis, Edmund B., 100 N. Euclid Ave. (8)
Anstey, George, 4660 Maryland Ave. (8)
Arneson, A. N., 457 N. Kingshighway (8)

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INCREMIN offers l-Lysine for protein utilization, and essential vitamins noted for outstanding ability to stimulate appetite, overcome anorexia.

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or each cc. of INCREMIN Drops *contains:*

l-Lysine	300 mg.	Pyridoxine (B_6)	5 mg.
Vitamin B_{12}	25 mcgm.	(INCREMIN Drops contain 1% alcohol)	
Thiamine (B_1)	10 mg.		

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Birdsall, Thomas C., 4660 Maryland Ave. (8)
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Boldizar, Albert G., 1022 Beaumont Medical Bldg. (8)
Boldt, Thomas H., 6000 W. Florissant Ave. (20)
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Bowersox, Warren A., 100 N. Euclid Ave. (8)
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Brennan, Robert A., 3606 Gravois Ave. (16)
Brennan, Robert V., 637 West Adams Ave. (22)
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Bronson, Shael S., 813 Missouri Theatre Bldg. (3)
Brookes, Henry S., Jr., 37 Algonquinwood Pl. (19)
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Brown, E. Eugene, 379 N. Taylor Ave. (8)
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Brown, Seymour, 2 Ricardo Lane (24)
Bruce, Helen L., 3263 Hawthorne Blvd. (4)
Bryan, James H., 330 Beaumont Medical Bldg. (8)
Bryan, William T. K., 330 Beaumont Medical Bldg. (8)
Bublis, Mary D., c/o Veterans Hospital, Temple, Texas
Bublis, Norbert J., Veterans Hospital, Temple, Texas
Bukantz, Samuel C., 34 Marshall Pl. (19)
Bulger, Harold A., 4405 W. Pine Blvd. (8)
Bunch, Rob R., 429 Missouri Theatre Bldg. (3)
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Burford, Cyrus E., 958 Arcade Bldg. (1)
Burford, E. Humber, 958 Arcade Bldg. (1)
Burke, Robert J., 6484 Murdoch Ave. (9)
Burkhardt, Edward F., 1325 S. Grand Blvd. (4)
Burnett, Jack M., 915 N. Grand Blvd. (6)
Burns, Francis J., 4660 Maryland Ave. (8)
Burns, Stanley S., 823 Missouri Theatre Bldg. (3)
Burst, Donald O., 6757 Plainview Ave. (9)
Busch, Anthony K., 5300 Arsenal St. (9)
Butcher, Harvey R., Jr., 600 S. Kingshighway (10)
Byars, Louis T., 100 N. Euclid Ave. (8)
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Calodney, Martin M., 7247 Delmar Blvd. (5)
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Campos, Francisco J., 405 Lister Bldg. (8)
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Carney, Joseph E., Jr., 525 Frisco Bldg. (1)
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Cassidy, Leslie D., 4952 Maryland Ave. (8)
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Cherre, Charles J., 10 Haddington Ct. (24)
Chieffi, Margaret, 735 Beaumont Medical Bldg. (8)
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Cibis, Paul A., 640 N. Kingshighway (8)
Clancy, James F., 424 University Club Bldg. (3)
Clark, James F., 864 Hamilton Ave. (12)
Clawson, James W., Address unknown
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Cohen, Benjamin H., 15 N. Brentwood Blvd. (5)
Cohen, Louis, Lister Bldg. (8)
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Collodi, George A., 20 S. Cote Road (17)
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Connor, John J., 433 Metropolitan Bldg. (3)
Conrad, Adolph H., 512 Beaumont Medical Bldg. (8)
Conrad, Adolph H., Jr., 512 Beaumont Medical Bldg. (8)
Conrad, Marshall B., 41 N. Central Ave. (5)
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Cook, Ralph L., 7135 Kingsbury Ave. (5)
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Cooper, Thomas J., 3714 Washington Blvd. (8)

Copher, Glover H., 5281 Westminster Pl. (8)
Cordonnier, Justin, 4960 Audubon Ave. (10)
Cornell, John C., 5005 Gravois Ave. (16)
Correnti, Nicholas A., 100 N. Euclid Ave. (8)
Costa, Dominic V., 16 Hampton Village Plaza (9)
Costello, Cyril J., 1515 Lafayette Ave. (4)
Costello, Joseph P., 4952 Maryland Ave. (8)
Costello, Joseph P., Jr., 30 Arundel Pl. (5)
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Coughlin, Bertrand D., 333 Metropolitan Bldg. (3)
Cox, Mary E., 4500 W. Pine Blvd. (8)
Crego, Clarence H., Jr., 1033 Missouri Theatre Bldg. (3)
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Dankner, Arnold, 110 S. Central Ave. (5)
Davie, Joseph, 406 Frisco Bldg. (1)
Davis, Frank L., 620 University Club Bldg. (3)
Davis, Martin W., 490 Oakwood Ave. (19)
Davis, Myron W., 718 Beaumont Medical Bldg. (8)
Day, Anthony B., 411 Beaumont Medical Bldg. (8)
Deakin, Rogers, 723 University Club Bldg. (3)
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Dworkin, Saul, 1657 S. Grand Blvd. (4)
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Earp, Ralph K., 912 Beaumont Medical Bldg. (18)
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Ecklund, Archibald M., Staff Comservlant Bldg., 142 Naval Base, Norfolk 11, Va.
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Efron, Joseph, 3310 USAF Hospital, Scott AFB, Belleville, Ill.
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Eidelman, Jack, 4652 Maryland Ave. (8)
Eidmann, Walter P., 3146 Morganford Rd. (16)
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Engleman, Reinhold, 1434 Chambers Rd. (21)
Engman, Martin F., Jr., 601 Beaumont Medical Bldg. (8)
Epp, George J., 3807 Bowen St. (16)
Erlanger, Herman, 507 S. Euclid Ave. (10)
Erlanger, Joseph, 4580 Scott Ave. (10)
Ernst, Edwin C., 100 Beaumont Medical Bldg. (8)
Ernst, Edwin C., Jr., 100 Beaumont Medical Bldg. (8)
Ernst, Roland P., 3720 Washington Blvd. (8)
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Feldman, David, 601 Humboldt Bldg. (3)
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Finnegan, Joseph V., 1106 Missouri Theatre Bldg. (3)
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Fischer, Harry W., 515 Lake Ave. (19)
Fish, Virgil O., 780 Yale Ave. (5)
Fisher, Harry E., Jr., Holy Cross Hospital, Salt Lake City, Utah
Fitzgerald, Leo P., 6677 Delmar Blvd. (5)
Fitzgerald, William T., 3915 Watson Rd. (9)
Flance, Israel J., 4652 Maryland Ave. (8)
Flavan, David B., 401 Humboldt Bldg. (3)
Fleishman, Alfred, 462 N. Taylor Ave. (8)
Fletcher, Paul F., 517 Missouri Theatre Bldg. (3)
Flotte, Bernard H., 2435 N. Grand Blvd. (6)
Flotte, Sylvester A., 915 N. Grand Blvd. (6)
Flynn, Edward P., 508 N. Grand Blvd. (3)
Flynn, John T., 1715 S. 39th St. (10)
Flynn, Joseph E., 1617 S. Brentwood Blvd. (17)
Ford, Lee T., Jr., 45 Green Acres (15)
Forsen, James A., 401 Wall Bldg. (8)
Forster, Armand C., 1504 S. Grand Blvd. (4)
Forti, John J., 4703 Carter Ave. (15)
Foster, Howard M., 2025 North & South Rd. (14)
Foster, Leon, 727 Missouri Theatre Bldg. (3)
Fox, Robert E., 539 N. Grand Blvd. (3)
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Franklin, Max S., 727 Missouri Theatre Bldg. (3)
Freedman, Harold, 717 University Club Bldg. (3)
Freedman, Ruth S., 607 N. Grand Blvd. (3)
Freeman, David M., 7316 Kingsbury Ave. (5)
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Frerking, Herbert W., 5535 Delmar Blvd. (12)
Freund, Newton M., 1119 Surry Hills Dr. (17)
Freund, Samuel J., 4409 West Pine Blvd. (8)
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Fries, William A., 3840a Fillmore St. (16)
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Funsch, Edwin C., 614 Beaumont Medical Bldg. (8)
Funsch, Robert E., 894 Alanson Dr. (24)
Furla, Gus J., 1773 High School Dr. (17)
Furlow, Leonard T., 530 Beaumont Medical Bldg. (8)
Gafney, George T., 7260 Pershing Ave. (5)
Gale, Philip R., 125 Orchard Ave. (19)
Gallagher, John F., 1440 Spoede Rd. (24)
Gallagher, William J., 7214 Greenway Ave. (5)
Gansloser, Maximilian W., 3624 Arsenal St. (16)
Gansloser, Wilbert M., 6376 Clayton Rd. (17)
Garfinkel, Bernard T., 457 N. Kingshighway (8)
Gay, Lee P., 515 E. High St., Jefferson City
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Gibbons, Edward H., 3608 S. Grand Blvd. (18)
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Glennon, William P., 634 University Club Bldg. (3)
Glick, Harry N., 1504 S. Grand Blvd. (4)
Gnade, Albert J., 3606 Gravois Ave. (16)
Goebel, Joan M., 5128 Jamieson Ave. (9)
Goldenson, Max J., 433 Metropolitan Bldg. (3)
Goldfarb, Alvin, 23 Bon Hills Dr. (24)
Goldman, Alfred, 1215 Missouri Theatre Bldg. (3)
Goldman, Melvin L., 1215 Missouri Theatre Bldg. (3)
Goldring, Sidney, 216 S. Kingshighway (10)
Gorla, Wayne O., 202 Lindell Trust Bldg. (6)
Gradwohl, Rutherford B. H., 3514 Lucas Ave. (3)
Graham, David T., 600 S. Kingshighway (10)
Graneto, Joseph A., 5521 S. Broadway (11)

Grant, Samuel B., 114 N. Taylor Ave. (8)
Graul, Elmer G., 2838 S. Grand Blvd. (18)
Graul, Walter P., Beaumont Medical Bldg. (8)
Grebel, Clement B., 16 Hampton Village Plaza (9)
Greditzer, Arthur S., 4500 W. Pine Blvd. (8)
Green, Daniel, 8877 Ladue Rd. (27)
Greiner, Theodore, 7507 Washington Blvd. (5)
Griggs, James Y., 508 S. Main, Benld, Ill.
Grindon, Joseph, Jr., 539 N. Grand Blvd. (3)
Grogan, Frank M., 813 Missouri Theatre Bldg. (3)
Gross, Joseph L., 729 Missouri Theatre Bldg. (3)
Grueb, Paul M., 3402a California Ave. (18)
Gruenfeld, Gerhard E., 201 Lister Bldg. (8)
Grybinas, Vytautas J., M.H.C.S., First Inf. Div., Ft. Riley, Kansas
Guccione, Joseph B., 2801 N. Taylor Ave. (15)
Gulick, Charles R., 47 W. Drake Ave. (19)
Gum, William R., 2227 S. Broadway (4)
Gummels, Belmont B., 1116 McCausland Ave. (17)
Gundlach, Arthur, 2202 University St. (7)
Gunn, Walter T., 4617 Dahlia Ave. (16)
Guze, Samuel B., 600 S. Kingshighway (10)
Gzell, Ronald, 5189 Kensington Ave. (8)
Hackmeyer, Rubin, 4065 S. Grand Blvd. (18)
Haddock, James N., 111 Firwood Dr. (19)
Haffner, Heinz, 3720 Washington Blvd. (8)
Hagan, Daniel J., 3915 Watson Rd. (9)
Hagebusch, Omer E., 3714 Washington Blvd. (8)
Hager, Victor K., 4922 Hampton Ave. (9)
Hall, Andy, Jr., 301 University Club Bldg. (3)
Hall, Lee A., 35 N. Central Ave. (5)
Hall, Preston C., 4243 Lafayette Ave. (10)
Hall, Robert A., 43 Washington Terr. (12)
Hamilton, Eugene G., 8505 Delmar Blvd. (24)
Hamilton, William P., 24 Gast Pl. (15)
Hammond, John J., 734 Missouri Theatre Bldg. (3)
Hampton, Stanley F., 1018 Beaumont Medical Bldg. (8)
Hanford, Wesley W., 601 University Club Bldg. (3)
Hankin, Norman M., 16 Hampton Village Plaza (9)
Hanlon, C. Rollins, 1325 S. Grand Blvd. (4)
Hanna, Richard E., 5535 Delmar Blvd. (12)
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Hanser, S. Albert, 924 Arcade Bldg. (1)
Hanser, Theodore H., 3701 Grandel Square (8)
Hardy, Joseph A., Jr., 4952 Maryland Ave. (8)
Harell, Alex, 216 Wall Bldg. (8)
Harford, Carl G., 600 S. Kingshighway (10)
Harkin, James C., 600 S. Kingshighway (10)
Harkins, William B., 218 Beaumont Medical Bldg. (8)
Harmann, Martin F., 206 Lindell Trust Bldg. (6)
Harper, Fleming B., 600 S. Kingshighway (10)
Harris, Charles W., 5298 Page Blvd. (13)
Harris, Irwin J., 7427 Bland Dr. (5)
Harris, Solon P., 6826 Natural Bridge Ave. (20)
Harrison, Lee B., 601 University Club Bldg. (3)
Harting, Hugh R., 3715 Washington Blvd. (8)
Hartman, Howard E., 3310th USAF Hosp., Scott AFB, Ill.
Hartman, Paul T., 6376 Clayton Rd. (17)
Hartmann, Alexis F., 500 S. Kingshighway (10)
Hartnett, Dalton C., 422 Missouri Theatre Bldg. (3)
Hartnett, Leo J., 422 Missouri Theatre Bldg. (3)
Hartstein, Jack, 1515 Lafayette Ave. (4)
Hartwig, John A., 2807 N. Grand Blvd. (7)
Hassett, Henry A., 618 University Club Bldg. (3)
Hawk, Bray O., 4660 Maryland Ave. (8)
Hawker, William D., 16 Hampton Village Plaza (9)
Hawkins, George L., Jr., 625 University Club Bldg. (3)
Hayden, Loyola F., 730 Hodiamont Ave. (12)
Hayek, Wesley E., 915 N. Grand Blvd. (6)
Haynes, James W., 404 Missouri Theatre Bldg. (3)
Haynes, Pugh, Jr., 3720 Washington Ave. (8)
Heideman, Alvah G., 723 Metropolitan Bldg. (3)
Heifetz, Carl J., 457 N. Kingshighway (8)
Heinbecker, Peter, Barnes Hospital (10)
Helbing, Harry H., 5475 Cabanne Ave. (12)
Henderlite, John W., 408 Lister Bldg. (8)
Henke, Charles F., 3109 S. Grand Blvd. (18)
Hennelly, John J., 16 Hampton Village Plaza (9)
Henschel, Eugene V., 6200 Hoffman Ave. (9)
Herman, Morris, 3701 Grandel Square (8)
Herrick, Harold C., 5747 Bartmer Ave. (12)
Hess, A. Michael, 915 N. Grand Blvd. (6)
Heusler, Anton F., 5400 Arsenal St. (9)
Hewitt, Walter R., 7649 Delmar Blvd. (5)
Heyer, Oscar C., 8015 S. Broadway (11)
Hickey, Robert F., 916 Missouri Theatre Bldg. (3)
Hildreth, H. Rommel, 1030 Beaumont Medical Bldg. (8)
Hines, Arthur A., 10695 Bellefontaine Rd. (15)
Hobart, Carl A., 3601 Gravois Ave. (16)
Hoefer, Walter H. V., 3108 S. Grand Blvd. (18)
Hoffmann, Augustin D., 6222 Delor St. (9)
Hofstatter, Leopold, 16 Hampton Village Plaza (9)
Hofstatter, Lilli, 10053 Lakeside Dr. (23)
Holbrook, Charles K., 9901 Diamond Dr. (15)
Holdenried, William E., 4131 Tholozan Ave. (16)
Hollo, Vencel W., 4960 Laclede Ave. (8)
Holt, Earl P., Jr., 5444 Clemens Ave. (12)
Homan, J. S., 4903 Delmar Blvd. (8)
Honich, Nicholas J., 8902 Riverview Blvd. (21)
Horner, John L., 114 N. Taylor Ave. (8)
Horwitz, Irwin B., 504 Metropolitan Bldg. (3)
Hosto, Leland E., 4909 Lindenwood Ave. (9)
Houston, Vincent T., 7820 Carondelet Ave. (5)
Hrdlicka, Victor E., 1020 Missouri Theatre Bldg. (3)
Huber, Erwin T., 913 Missouri Theatre Bldg. (3)
Huck, Richard F., 429 Missouri Theatre Bldg. (3)
Huggins, Albert M., 734 Missouri Theatre Bldg. (3)
Hulbert, Bernard, 16 Pasteur Medical Bldg. (8)
Hummel, Anton J., 5203 Chippewa St. (9)
Humphrey, Harvey A., 510 S. Kingshighway (10)
Hunter, Charles H., D. C. General Hospital, 19th & E Sts., S.E., Washington, D. C.
Hutchinson, James H., Jr., 114 N. Taylor Ave. (8)
Hutto, A. Herman, 105 Lister Bldg. (8)
Hutton, Joseph L., 902 S. Side Natl. Bank Bldg. (14)
Hyman, Anna, 5400 Arsenal St. (9)
Hyndman, Charles E., 714 Beaumont Medical Bldg. (8)
Inkley, John J., 5203 Chippewa St. (9)
Israel, Milton R., 311 Hillside Ave. (19)
Ittner, George W., Jr., 901 Beaumont Medical Bldg. (8)
Izmirlian, Grant, 731 E. Big Bend Blvd. (19)
Jacobs, Charles C., 878 Melvin St. (15)
James, Norman A., 9903 Diamond Dr. (15)
James, William M., 1030 Beaumont Medical Bldg. (8)
Janney, James G., Jr., 35 N. Central Ave. (5)
Jaudon, Joseph C., 7803 Clayton Rd. (17)
Javaux, Everett J., 405 University Club Bldg. (3)
Jean, J. Ted, 4500 W. Pine Blvd. (8)
Jensen, J. Ernest, 616 University Club Bldg. (3)
Johnson, David S., 1430 Carroll St. (4)
Johnson, Mitchell D., 40 N. Florissant Rd. (21)
Johnstone, John, Jr., 1011 Beaumont Medical Bldg. (8)
Jones, Andrew B., 322 Beaumont Medical Bldg. (8)
Jones, Augustin, 634 N. Grand Blvd. (3)
Jones, Gray, 215 Lister Bldg. (8)
Jones, Otey S., 3616 S. Broadway (18)
Jones, Richard A., 332 Calvert Ave. (19)
Jones, Vincent L., 645 Missouri Theatre Bldg. (3)
Jones, William E., 110 S. Central Ave. (5)
Jordan, Edward J., 1504 S. Grand Blvd. (4)
Jordan, Walter R., 3903 Olive St. (8)
Jorel, Louis E., 1515 Lafayette Ave. (4)
Jorstad, Louis H., 411 Beaumont Medical Bldg. (8)
Joslyn, Harold L., 521 Missouri Theatre Bldg. (3)
Jost, Charles A., 6000 W. Florissant Ave. (20)
Judy, Joseph, 212 S. Florissant Rd. (21)
Jungk, Carl G. W., 2278 S. Jefferson Ave. (4)
Kamakas, Nicholas, 937 Airport Rd. (21)
Kane, Clyde E., 706 Walton Ave. (8)
Kane, R. Emmet, 1117 N. Grand Blvd. (6)
Kaplan, Albert, 726 Country Club Dr. (21)
Kappesser, Netajean B., 7044 Lindell Blvd. (5)
Kappesser, Roland C., 7044 Lindell Blvd. (5)
Karandjeff, A. D., 811 Metropolitan Bldg. (3)
Karl, Michael M., 4652 Maryland Ave. (8)
Kaskie, Clifford R., 35 N. Central Ave. (5)
Katz, Samuel D., 825 Midland Blvd. (5)
Keeble, Charles B., 3102 S. Grand Blvd. (18)
Keenoy, John J., 501 Metropolitan Bldg. (3)
Keffler, Karl L., 1139 Bellevue Bldg. (17)
Kehoe, John J., 4145 St. Louis Ave. (15)
Keim, John P., 2730 McNair Ave. (18)
Keller, Joseph M., 416 Metropolitan Bldg. (3)
Keller, Louis, 35 N. Central Ave. (5)
Keller, Maurice J., 3701 Grandel Square (8)
Kellett, John G., 243 Kenora Ct. (19)
Kelley, Isaac D., Jr., 476 N. Kingshighway (8)
Kelley, Robert W., 622 Beaumont Medical Bldg. (8)
Kelly, Charles A., 3606 Gravois Ave. (16)
Kelly, R. Emmet, 1700 S. Second St. (4)
Kenamore, Bruce, 600 Union Blvd. (8)
Kennedy, Francis L., 19 Thorndell Dr. (17)
Kerr, David N., 4500 Olive St. (8)
Kettelkamp, George D., 4931 Potomac St. (9)
Keyes, Edward L., 100 N. Euclid Ave. (8)
Kieffer, Roland S., 100 N. Euclid Ave. (8)
Kieffer, Victor B., Jr., 100 N. Euclid Ave. (8)
Kienzle, Edward C., 4075 S. Grand Blvd. (11)
King, Francis C., 49 Fair Oaks St. (17)
King, John V., 689 E. Big Bend Rd. (19)
King, Samuel J., 800 Carleton Bldg. (1)
Kinner, Helmuth M., 3014 S. Jefferson Ave. (18)
Kinsella, Dalton L., Jr., Jackson Memorial Hospital, Miami 36, Fla.
Kinsella, Ralph A., 415 Beaumont Medical Bldg. (8)

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Vitamin B_{12} activity concentrate	4 mcg.
Thiamine mononitrate	1.0 mg.
Riboflavin	1.0 mg.
Niacinamide	5 mg.
Pantothenic acid (Panthenol)	1.5 mg.
Pyridoxine hydrochloride	0.5 mg.

Alcohol content: 12 per cent

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Klaff, Daniel D., 309 Beaumont Medical Bldg. (8)
Klein, Andrew G., 2959 Milton Blvd. (4)
Klein, Arnold G., 2632 S. Kingshighway (9)
Klein, Arthur, 502 Greenlawn Dr., Hyattsville, Md.
Klein, Bert, 2632 S. Kingshighway (9)
Klein, Harry A., 5074 N. Union Blvd. (15)
Kleinschmidt, Clinton, 7624 Maryland Ave. (5)
Klenk, Charles L., 420 Metropolitan Bldg. (3)
Klinge, Frederick W., 600 S. Kingshighway (10)
Klippel, Bernhardt Wm., 3701 Grandel Sq. (8)
Klym, Nicholas, 3626-28 N. 11th St. (7)
Kneal, E. Ellsworth, 921 Missouri Theatre Bldg. (3)
Knese, Luke A., 1506 Hodiamont Ave. (12)
Knight, Franklin P., 9746 Colony Dr. (15)
Knight, William A., Jr., 4161 Lindell Blvd. (8)
Knoke, Frederick W., Jr., 4535 Wabash Ave. (9)
Knowlton, Norman P., Jr., 14 Oakleigh Lane (24)
Koenig, George H., 5135 31st Ave. S., St. Petersburg, Fla.
Koenig, Karl F., 502 Beaumont Medical Bldg. (8)
Kohler, Eugene J., 4968 Delmar Blvd. (8)
Kohler, Louis H., 5300 Arsenal St. (9)
Komanetsky, W. M., 6400 Morganford Rd. (16)
Koon, Bernard T., 4755 Morganford Rd. (16)
Kopp, Leonard J., 7844 Madison Dr. (14)
Korn, Robert L., 8230 Forsyth Blvd. (24)
Kotkis, Alexander J., 80 York Dr. (17)
Kotner, Lawrence M., 4409 W. Pine Blvd. (8)
Kountz, William B., 415 Lister Bldg. (8)
Kouri, Martin F., 4473 W. Pine Blvd. (8)
Koutsoumpas, William V., 1405 S. Broadway (4)
Kowert, Edward H., 3720 Washington Blvd. (8)
Kraft, Edward O., 2019 St. Clair Ave. (17)
Kramer, Fred, 4161 Lindell Blvd. (8)
Kramolowsky, Helmuth H., 986 Arcade Bldg. (1)
Kraner, Justin F., 4409 W. Pine (8)
Krause, G. Lynn, 614 Beaumont Medical Bldg. (8)
Krebs, Joseph M., 634 N. Grand Blvd. (3)
Krebs, Otto S., 207 Beaumont Medical Bldg. (8)
Kromer, Charles, 6606 Oleatha Ave. (9)
Kubitschek, Paul F., 207 Beaumont Medical Bldg. (8)
Kuebrich, Thomas C., 111 Church St. (21)
Kurtzeborn, Edwin E., 4120 Leona St., Tampa 9, Fla.
Kurz, Rudolph F., 1148 Pierce Bldg. (2)
Kutryb, Walter J., 6000 W. Florissant Ave. (20)
Ladd, Charles R., 7430 Virginia Ave. (11)
LaDriere, Raymond J., 35 N. Central Ave. (5)
Lakes, John D., 1907 Delmar, Granite City, Ill.
Lam, Robert L., 100 N. Euclid Ave. (8)
Lamb, Wanda, 4500 W. Pine Blvd. (8)
Landau, William M., 640 S. Kingshighway (10)
Landree, James C., Melbourne Hotel (8)
Lane, Clinton W., 440 Beaumont Medical Bldg. (8)
Langan, William J., Jr., 5803 Plymouth Ave. (12)
Lange, Adolph C., 512 Wall Bldg. (8)
Lanier, Earl W., 3731 Goodfellow Ave. (20)
Lansche, Elmer A., 6303 Natural Bridge Ave. (20)
Larimore, Joseph W., 626 Beaumont Medical Bldg. (8)
Larsen, Kenneth V., 819 University Club Bldg. (3)
Larson, Paul U., 600 Union Blvd. (8)
Lassar, Gilbert N., 1307 Washington Blvd. (3)
Lawrence, George H., 504 University Club Bldg. (3)
Lawrence, John V., 4534 W. Pine Blvd. (8)
Lawton, John T., 410 N. Newstead Ave. (8)
Lawton, Lawrence W., 2801 N. Taylor Ave. (15)
Lawton, Thomas P., 2739 N. Grand Blvd. (6)
LeBlanc, Leo J., 801 Beaumont Medical Bldg. (8)
Lederman, Joseph, 2400 N. Grand Blvd. (6)
Lembeck, Joseph A., 601 University Club Bldg. (3)
Lenobel, Milton I., 16 Granada Way (24)
Lerwick, Everett R., 5342 Mardel Ave. (9)
Levin, Sidney S., 440 N. Taylor Ave. (8)
Levitt, Joseph, 7354 Cornell Ave. (5)
Levy, Irwin, 4952 Maryland Ave. (8)
Lewis, James E., Jr., 1325 S. Grand Blvd. (4)
Leydig, Stanley M., 16 Hampton Village Plaza (9)
Lieb, Francis X., 634 N. Grand Blvd. (3)
Lieb, Otto, 307 Lister Bldg. (8)
Liebermann, David M., 457 N. Kingshighway (8)
Liebmann, Fritz M., 919 N. Taylor Ave. (8)
Liese, Grover B., 321 Beaumont Medical Bldg. (8)
Liggett, Hiram S., 401 Beaumont Medical Bldg. (8)
Lindeman, Carl H., 307 S. Euclid Ave. (10)
Link, Alexander J., 212 Metropolitan Bldg. (3)
Lipsitz, Ellis S., 457 N. Kingshighway (8)
Lischer, Carl E., 457 N. Kingshighway (8)
Littauer, David, 216 S. Kingshighway (10)
Little, Monroe H., 3167 Sheridan Ave. (6)
Littmann, Lewis E., 8231 Clayton Rd. (17)
Litzow, Louis T., 1114 Missouri Theatre Bldg. (3)
Loeb, Virgil, Jr., 100 N. Euclid Ave. (8)
Loeffel, Ellen S., 635 Beaumont Medical Bldg. (8)
Lohr, Curtis H., 601 S. Brentwood Blvd. (5)
Londe, Sol, 201 Lister Bldg. (8)
Lonergan, Warren M., 457 N. Kingshighway (8)
Lonsway, Maurice J., 8225 Clayton Rd. (17)
LoPiccolo, Vincent J., 1931 Marconi Ave. (10)
Lottes, James O., 16 Hampton Village Plaza (9)
Lowenstein, Paul S., 12 Hillvale Dr. (5)
Lucido, Joseph L., 1023 Missouri Theatre Bldg. (3)
Luedde, Philip S., 16 Hampton Village Plaza (9)
Luh, Andrew, 505 Humboldt Bldg. (3)
Lund, Herluf G., 2864 Lawndell Dr. (17)
Luten, Drew W., 502 Beaumont Medical Bldg. (8)
Lutz, Martin H., Lincoln Mercury Div., Ford Motor Co., Robertson
Lyman, Edward H., 906 Carleton Bldg. (1)
Lynxwiler, Chester P., 1325 S. Grand Blvd. (4)
Lyttle, Garnet C., 2407 N. Broadway (6)
Lytton, William B., 29 Overhill Dr. (17)
McAdam, Charles R., 525 Frisco Bldg. (1)
McAfee, C. Alan, 457 N. Kingshighway (8)
McCann, John F., 16 Hampton Village Plaza (9)
McCarroll, Henry R., 3720 Washington Blvd. (8)
McCarthy, Eugene F., 5070 Westminster Pl. (8)
McCaughan, John M., 505 Humboldt Bldg. (3)
McCloskey, R. Bruce, 745 E. Big Bend Blvd. (19)
McDonald, George H., 8418 Knollwood Dr. (21)
McDowell, Frank S., 100 N. Euclid Ave. (8)
McElvain, Robert C., 4356 Warne Ave. (7)
McFadden, James F., 4 Ridgemoor Dr. (5)
McFadden, James F., Jr., 940 Missouri Theatre Bldg. (3)
McGennis, Patrick, P. O. Box 603 (1)
McGinnis, Albert E., 600 S. Kingshighway (10)
McGinnis, Bryon J., 16 Hampton Village Plaza (9)
McLelland, Richard I., 8515 Delmar Blvd. (24)
McMahan, John H., 5400 Arsenal St. (9)
McMahon, Alphonse, 816 Missouri Theatre Bldg. (3)
McMahon, Bernard J., 8230 Forsyth Blvd. (24)
McNamara, John J., 1390 S. Florissant Ave. (21)
McNamee, Owen J., 7619 Ivory Ave. (11)
McNamee, William F., 7619 Ivory Ave. (11)
McNeel, John O., 1127 Pine St. (1)
McSwiney, John G., 5014 Thekla Ave. (15)
Maas, Hermann, 827 Metropolitan Bldg. (3)
MacBryde, Cyril M., 1333 W. Adams Rd. (22)
Macdonald, William C., 201 Humboldt Bldg. (3)
Mack, Robert E., Radioisotope Clinic, Walter Reed Army Hospital, Washington 12, D. C.
Mackey, John F., Jr., 228 Beaumont Medical Bldg. (8)
Macko, Joseph R., Missouri Theatre Bldg. (3)
Macnish, James M., 4405 W. Pine Blvd. (8)
Macon, William L., Jr., 7200 Manchester Ave. (17)
Magallon, Dorothy T., Dist. 2, St. Tuberculosis Hosp., Louisville, Ky.
Magallon, Robert A., Dist. 2, St. Tuberculosis Hosp., Louisville, Ky.
Maher, Thomas F., 1015 Missouri Theatre Bldg. (3)
Maizus, Saul H., 5845 Devonshire Ave. (9)
Malles, A. Conrad, 819 University Club Bldg. (3)
Manion, Peter J., 3915 Brannon Ave. (9)
Mannis, Ben G., 846 N. McKnight Rd. (24)
Mansbacher, Kurt, 462 N. Taylor Ave. (8)
Manting, George, 4903 Delmar Blvd. (8)
Marston, Warren G., 607 N. Grand Blvd. (3)
Martin, Charles E., 4020 W. Florissant Ave. (7)
Martin, Maynard W., Texas Medical Center, Houston, Texas
Martin, Raymond T., 5203 Chippewa St. (9)
Martin, Thomas M., 937 Missouri Theatre Bldg. (3)
Mason, Roy E., Frisco Bldg. (1)
Massie, Edward, 457 N. Kingshighway (8)
Masters, William H., 630 S. Kingshighway (10)
Mastin, E. Vernon, Saunderstown, R. I.
Matthews, John G., 3707 Watson Rd. (9)
Maughs, Sydney B., 4500 W. Pine Blvd. (8)
Max, Paul F., 701 Beaumont Medical Bldg. (8)
Maze, Lawrence E., 630 S. Kingshighway (10)
Medler, Francis J., 4118 W. Florissant Ave. (15)
Mehan, George T., 414 Wall Bldg. (8)
Meinberg, William H., 329 Frisco Bldg. (1)
Meiners, Edwin P., 6651 Enright Ave. (5)
Meiners, Theodore M., 922 Newport Ave. (19)

Meisenbach, A. Edward, Wall Bldg. (8)
Melick, William F., 306 Humboldt Bldg. (3)
Mellies, Eugene G., 7518 Forest View Dr. (21)
Mendonsa, Lawrence E., 616 University Club Bldg. (3)
Merenda, Sam J., 45 Berry Road Park (19)
Merklin, Anton L., 3507 Potomac St. (18)
Metz, Charles O., 3102 S. Grand Blvd. (18)
Meyer, Curtis A., 6534 Walsh St. (9)
Meyer, Herman M., 4409 W. Pine Blvd. (8)
Meyer, Oscar D., 6029 S. Kingshighway (9)
Meyerhardt, Milton H., 4409 W. Pine Blvd. (8)
Meyers, John B., 3903 Olive St. (8)
Meyers, Montague M., 1300 Grant Rd. (19)
Mezera, Raymond A., 7135 Forsyth Blvd. (5)
Michael, Vernon E., Arcade Bldg. (1)
Michaelree, John F., Harper Bldg. (17)
Middleman, Isadore C., 462 N. Taylor Ave. (8)
Mier, Thomas M., 703 University Club Bldg. (3)
Milder, Benjamin, 100 N. Euclid Ave. (8)
Miller, Charles W., 408 Humboldt Bldg. (3)
Miller, H. Edward, 425 Oak Ave. (19)
Millikin, Lester A., 2608 S. Kingshighway (9)
Mills, Warren B., 1420 Grattan St. (4)
Milster, Clyde R., 411 Frisco Bldg. (1)
Mistachkin, Norman L., Romany Park (24)
Moeller, Carl E., 3537 S. Jefferson Ave. (18)
Molhom, Hans B., 1960 W. Broad St. Columbus, Ohio
Montani, Charles, 5147 Daggett Ave. (10)
Moore, Carl V., 600 S. Kingshighway (10)
Moore, Neil S., 7299 Westmoreland Dr. (5)
Moore, Sherwood, Barnes Hospital (10)
Morfit, John C., 7112 Wydown Blvd. (5)
Morrin, Kevin C., 5251 Westminster Pl. (8)
Morris, Harvey E., 8005 Audrain Dr. (21)
Morris, Mary E., 719 Metropolitan Bldg. (3)
Moskop, Peter G., 3736 Dunnica Ave. (16)
Motzel, Albert J., 6238 Washington Blvd. (5)
Mountjoy, Grace S., 20 Southmoor Dr. (5)
Mowrey, William O., 3633 Fair Ave. (15)
Moyer, Carl A., 7516 Washington Blvd. (5)
Muckerman, Richard I. C., 433 Missouri Theatre Bldg. (3)
Mudd, J. Gerard, 9900 Litzsinger Rd. (17)
Mudd, James L., 914 Missouri Theatre Bldg. (3)
Mueller, Clarence E., 1020 Missouri Theatre Bldg. (3)
Mueller, Joseph A., 3177 S. Grand Blvd. (18)
Mueller, Morris A., 11 Long Meadows (22)
Mueller, Robert, 975 Arcade Bldg. (1)
Mueller, Robert J., 16 Hampton Village Plaza (9)
Mueller, W. K., 1160 S. McKnight Rd. (17)
Muenster, Joseph J., Jr., 1753 W. Congress St., Chicago 12, Ill.
Muether, Raymond O., 4161 Lindell Blvd. (8)
Mulligan, Leo V., 916 Missouri Theatre Bldg. (3)
Munsch, Augustus P., 306 Humboldt Bldg. (3)
Munsch, Girard A., 35 N. Central Ave. (5)
Murphy, James P., 934 University Club Bldg. (3)
Murphy, John P., 308 Lister Bldg. (8)
Murphy, Paul, 714 Metropolitan Bldg. (3)
Murray, Louis F., 605 Russell Blvd. (4)
Mutshnick, Clara P., 3103 Shenandoah Ave. (4)
Naryka, Joseph J., 306 Humboldt Bldg. (3)
Nash, Francis P., 3720 Washington Blvd. (8)
Nash, Helen E., 1048 N. Vandeventer Ave. (13)
Nash, Homer E., Jr., 3136 Easton Ave. (6)
Nathan, Lester J., 216 S. Kingshighway (10)
Neilson, Arthur W., 306 Humboldt Bldg. (3)
Neilson, Charles H., 306 Humboldt Bldg. (3)
Nemec, Stanley S., 205 Wall Bldg. (8)
Nester, Charles A., 3921 Federer Pl. (16)
Neumann, Roland F., Jr., 418 Beaumont Medical Bldg. (8)
Neun, William F., 5862 Delor St. (9)
Newman, Harold G., 3720 Washington Blvd. (8)
Newman, Percy, 3539 Hartford St. (18)
Nicholai, Charles H., 20 Terrace Gardens (22)
Nichols, Charles E., 7200 Manchester Ave. (17)
Nickel, James F., 4952 Maryland Ave. (8)
Niedermeyer, George J., 3923 Watson Rd. (9)
Niesen, Frank J., 4209 S. Kingshighway (9)
Noah, Joseph W., 625 University Club Bldg. (3)
Nofles, James W., 4108 Easton Ave. (13)
Nolan, Charles J., 736 University Club Bldg. (3)
Noller, Henry W., 540 Beaumont Medical Bldg. (8)
Northup, Glenn R., 740 S. 4th St. (2)
Norton, William H., 729 Missouri Theatre Bldg. (3)
Nye, Robert S., 3201 Arsenal St. (18)
Obermeyer, Charles G., 3103 Arsenal St. (18)
O'Brien, Edward C., 915 N. Grand Blvd. (6)
O'Brien, Robert M., 4161 Lindell Blvd. (8)
Odell, Richard T., 816 Beaumont Medical Bldg. (8)
O'Donnell, Joseph V., 408 Humboldt Bldg. (3)
O'Dowd, James A., 2919 S. Kingshighway (9)
Oetter, Donald L., 730 Hodiamont Ave. (12)
Ogura, Joseph H., 1038 Winwood Dr. (24)
Ohmoto, Masao, 607 N. Grand Blvd. (3)
O'Leary, James L., 660 S. Kingshighway (10)
Olmsted, William H., 1011 Beaumont Medical Bldg. (8)
O'Malley, Eugene J., 614 Missouri Theatre Bldg. (3)
O'Neal, Lawrence W., 4952 Maryland Ave. (8)
O'Neill, John B., 1222 Missouri Theatre Bldg. (3)
Oppenheimer, Henry E., 35 N. Central Ave. (5)
O'Reilly, Daniel E., 4161 Lindell Blvd. (8)
Orenstein, Joseph M., 108 Lister Bldg. (8)
Orgel, M. Norman, 626 Metropolitan Bldg. (3)
O'Sullivan, George A., 421 Schirmer St. (11)
Owen, James W., Jr., 4952 Maryland Ave. (3)
Paine, Robert, 901 Beaumont Medical Bldg. (8)
Palazzo, Frank A., 4161 Lindell Blvd. (8)
Paletta, Francis X., 940 Missouri Theatre Bldg. (3)
Parashak, Paul M., 5203 Chippewa St. (9)
Parato, John M., 4224 N. Grand Blvd. (7)
Pareira, Morton D., 743 Yale Ave. (5)
Parker, Thomas W., 7298 Greenway Dr. (5)
Parker, William, 807 Carleton Bldg. (1)
Parsons, Ernest H., 457 N. Kingshighway (8)
Passanante, Bartholomew M., 15 King-Lynn St. (24)
Patton, Leslie E., 701 Beaumont Medical Bldg. (8)
Payne, Meredith J., 1627 Chew, Allentown, Pa.
Peden, Burnet W., 35 N. Central Ave. (5)
Peden, Joseph C., 1015 Missouri Theatre Bldg. (3)
Peden, Joseph C., Jr., 457 N. Kingshighway (8)
Peeler, James O., 2505 N. Florissant Ave. (6)
Pelz, Mort D., 304 University Club Bldg. (3)
Penney, David L., 317 Wall Bldg. (8)
Pennington, F. E., 27 Log Cabin Dr. (17)
Pennoyer, James, 457 N. Kingshighway (8)
Pernoud, Flavius G., Jr., 841 Audubon Dr. (5)
Pernoud, Michael F., 51 Frontenac Dr. (24)
Peters, Augustus W., 4145 S. Grand Blvd. (18)
Peugnet, Hubert B., 718 University Club Bldg. (3)
Pfaff, John, Jr., 1402 S. Grand Blvd. (4)
Pfeifer, Oliver C., 6567 Murdoch Ave. (9)
Pickrell, Claude D., 406 Frisco Bldg. (1)
Piper, August T., 4503 Easton Ave. (13)
Plag, Albert F., 3150 Morganford Rd. (16)
Platt, William R., 919 N. Taylor Ave. (8)
Plesons, John D., 3632 Bates St. (16)
Ploehn, Emma, 2728 Geyer Ave. (4)
Ploussard, John H., 219 Lister Bldg. (8)
Plumpe, W. Tupper, 4415 Minnesota Ave. (11)
Pollack, Maxwell A., 311 Metropolitan Bldg. (3)
Popovich, Paul J., 6102 Oakland Ave. (10)
Porporis, Arthur A., 510 S. Kingshighway (8)
Portuondo, Bonaventura C., 3532 Flora Ct. (4)
Post, Lawrence T., 100 N. Euclid Ave. (8)
Post, M. Hayward, 100 N. Euclid Ave. (8)
Potashnick, Robert, 930 Beaumont Medical Bldg. (8)
Pote, Thomas B., 4925 Park View Pl. (10)
Potter, Allen B., 120 Jefferson Dr., Bowling Green
Powell, Carl A., 4643 Washington Blvd. (8)
Powell, Earl A., 517 Beaumont Medical Bldg. (8)
Powell, Rudolph V., 512 Beaumont Medical Bldg. (8)
Powers, Pierce W., 1106 Missouri Theatre Bldg. (3)
Powers, William E., 510 S. Kingshighway (8)
Pranger, Sylvester H., 4952 Maryland Ave. (8)
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Price, Kenneth C., 4952 Maryland Ave. (8)
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Proetz, Arthur W., 1010 Beaumont Medical Bldg. (8)
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Riley, Ralph D., 1134 Missouri Theatre Bldg. (3)
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Romney, Douglas, 600 S. Kingshighway (10)
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Rothweiler, Robert, 4161 Lindell Blvd. (8)
Rotter, Julius C., 2603 Cherokee St. (18)
Roulhac, George E., 530 Beaumont Medical Bldg. (8)
Roy, Joseph A., 912 Beaumont Medical Bldg. (8)
Royce, Robert K., 411 Beaumont Medical Bldg. (8)
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Rudi, Herbert J., 3532 Gravois Ave. (18)
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St. John, Thomas C., Metropolitan Bldg. (3)
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Salmon, William D., Jr., 4960 Audubon Ave. (10)
Sammons, Harry C., 414 W. Washington Ave. (22)
Sanders, Robert D., 1502 Cass Ave. (6)
Sanders, Theodore E., 100 N. Euclid Ave. (8)
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Sargent, Frederick K., 6430 Hampton Ave. (9)
Sassin, Edmond F., 518 Frisco Bldg. (1)
Sato, George, 5123 Shrewsbury Ave. (19)
Satterfield, Val B., 415 Lister Bldg. (8)
Satterwhite, George R., 1515 Lafayette Ave. (4)
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Sauer, W. Nicholas, 218 Beaumont Medical Bldg. (8)
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Schmiemeier, Roy H., Box 1039, Rt. 14, Affton (23)
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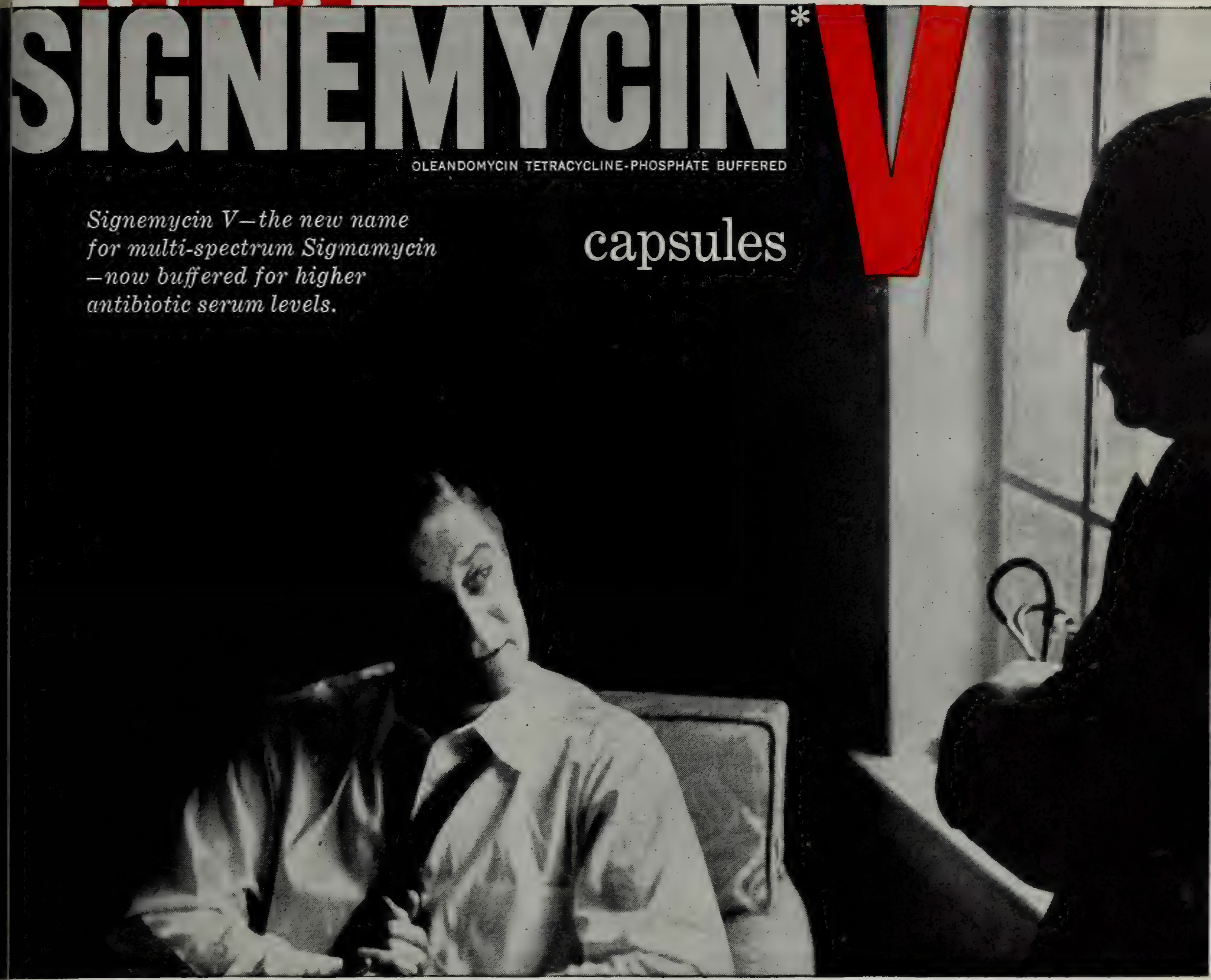

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Walsh, Theodore E., 640 S. Kingshighway (10)
Walsh, Thomas J., 457 N. Kingshighway (8)
Walters, Harold E., 720 Metropolitan Bldg. (3)
Walters, William H., 3608 S. Grand Blvd. (18)
Walton, Franklin E., 602 S. Euclid Ave. (10)
Warner, George K., 4535 Lindell Blvd. (8)
Warner, Robert G., 818 Olive St. (1)
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Wattenberg, Carl A., 49 Kingsbury Pl. (12)
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Williams, Ray D., 114 N. Taylor Ave. (8)
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Wilson, Keith S., 4952 Maryland Ave. (8)
Wilson, Kenneth O., 1259 N. Kingshighway (13)
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Woolsey, Robert D., 6944 Chippewa St. (9)
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Younger, Ernest, 3624 Russell Blvd. (10)
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Zeinert, Oliver B., 7246 Pershing Ave. (5)
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Current Practices in Dietary Management of Infant Allergies

Infants are not born hypersensitive but may develop hypersensitivity to foodstuffs shortly after birth. The earliest sensitizations are likely to be to milk, wheat, eggs and orange juice, with which contact is established early in life. Heredity is usually a dominant factor in the tendency of infants to develop allergy. Infants with a family history of both paternal and maternal allergy tend to develop clinical symptoms earlier than those with unilateral inheritance. Both the allergen and the symptom in the infant may be different from those of the father or mother.

Allergic disorders of infants include gastrointestinal disturbances, infantile eczema, urticaria and asthma. Gastrointestinal allergy may be manifested by vomiting, colicky abdominal pain and diarrhea. Allergic dermatitis may be evidenced by wheal-like cutaneous reactions which may develop into exudative lesions over the scalp, face and body. A systemic food hypersensitivity may produce an asthmatic response manifested by dyspnea and wheezing, although infection is usually associated with this type of response.

Common treatments include avoidance of the allergen, desensitization, antihistaminics and, in the presence of infection, antibiotics. Infants sensitive to the proteins of cow's milk whey may be fed human, goat or mare's milk reinforced with KARO® Syrup. Casein-sensitive infants may be offered soybean milk or amino acid mixtures reinforced with KARO Syrup.

The same problems of infant feeding recur from generation to generation, but solutions may differ with each era. The carbohydrate requirement for all infants is as completely fulfilled by KARO Syrup today as a generation ago. Whatever the type of milk adapted to the individual infant, KARO Syrup may be added confidently because it is a balanced mixture of low molecular weight sugars, readily miscible, well tolerated, palliative, hypo-allergenic, resistant to fermentation in the intestine, easily digestible, readily absorbed and non-laxative. KARO is readily available in all food stores.

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FOR ALLERGIC INFANTS

24-hour formulas made with hypoallergenic milk and KARO Syrup

WHOLE GOAT'S MILK FORMULAS

Age Months	Fluid Milk Fluid Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	No. of Feedings in 24 Hrs.	Total Calories
Birth	10	10	2	3	6	320
1	12	13	2½	4	6	390
2	15	13	3	4½	6	480
3	17	9	3	5	5	520
4	20	11	3½	6	5	610
5	23	11	4	6½	5	700
6	26	10	4	7	5	760
7	28	11	3	7½	5	740
8	30	11	2½	8	5	750
10	32	9	2	8	5	760

EVAPORATED GOAT'S MILK FORMULAS

Age Months	Weight Lbs.	Evap. Goat's Milk Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	No. of Feedings in 24 Hrs.	Total Calories
Birth	7	6	12	1	3	6	290
1	8	8	16	2	4	6	395
2	10	9	14	3	4½	5	520
3	12	10	15	3½	5	5	590
4	14	12	18	4	6	5	695
5	16	12	21	4	6½	5	695
6	17	13	22	4	7	5	730
7	18	14	21	3	7	5	710
8	19	15	20	2	7	5	690
10	21	16	16	1	8	4	730

LIQUID SOY MILK FORMULAS

Age Months	Evap. Milk Fluid Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	No. of Feedings in 24 Hrs.	Total Calories
Birth	6	12	2	3	6	380
1	8	16	3	4	6	532
2	9	14	3	4½	5	576
3	10	15	3½	5	4	650
4	12	18	4	6	5	768
5	12	21	4	6½	5	768
6	13	22	4	7	5	768
7	14	21	3	7	5	796
8	15	20	2	7	5	780
10	16	16	1	8	4	764

DRIED SOY MILK FORMULAS

Age Months	Dry Milk	Water Oz.	KARO Tbsp.	Each Feeding Oz.	No. of Feedings in 24 Hrs.	Total Calories
Birth	6	20	2	3	7	360
1	8	22	2	4	6	440
2	9	24	2½	4	6	510
3	10	29	3	6	5	580
4	12	33	3½	7	5	690
5	13	33	3½	7	5	730
6	14	33	3½	7	5	740
7	14	33	2½	7	5	710
8	15	33	2	7	5	720
10	15	33	2	8	4	720

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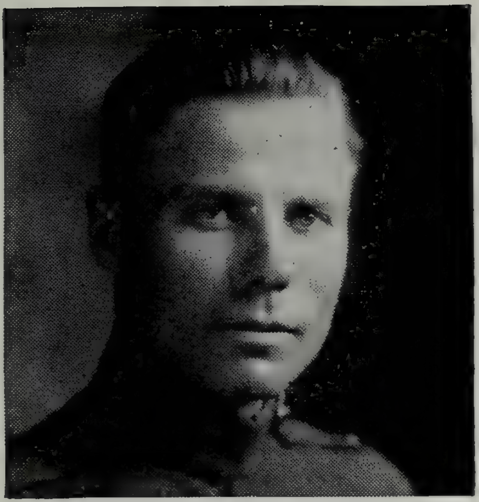

A bullet for Charlemagne

The Caco general got slowly to his feet. Behind him, in the darkness, stood a hundred Haitian outlaws. At his feet was a small fire.

Confronting him, the tattered young man in blackface disguise saw the firegleam on his white silk shirt and pearl handled pistol and knew this was the murderous chieftain, Charlemagne Masena Peralte. The man he'd come for, through a jungle and a 1200-man encampment, past six hostile outposts, risking detection and certain death.

Charlemagne squinted across the fire. "Who is it?" he challenged in Creole.

There was no alternative; Marine Sergeant Herman Hanneken drew an automatic and fired.

The night exploded into gunflame, most of it from Hanneken's second-in-command, Marine Corporal Button, and his handful of disguised Haitian gendarmes. But the shot that killed Charlemagne was the one which would finally end Caco terror and bring peace to Haiti.

Sergeant Hanneken is retired now—as Brigadier General Hanneken, USMC, with a Silver Star, a Legion of Merit, a Bronze Star, a Gold Star, and a Navy Cross. And, for his expedition against Charlemagne, November 1, 1919, the Medal of Honor.

The Herman Hannekens are a rare breed, it is true. Yet in all Americans there is much of the courage and character which they possess in such abundance. Richer than gold, it is the *living* wealth behind one of the world's soundest investments—United States Savings Bonds. It backs our country's guarantee: safety of principal up to any amount, and an assured rate of return. For real security, buy Bonds regularly, through your bank or the Payroll Savings Plan.

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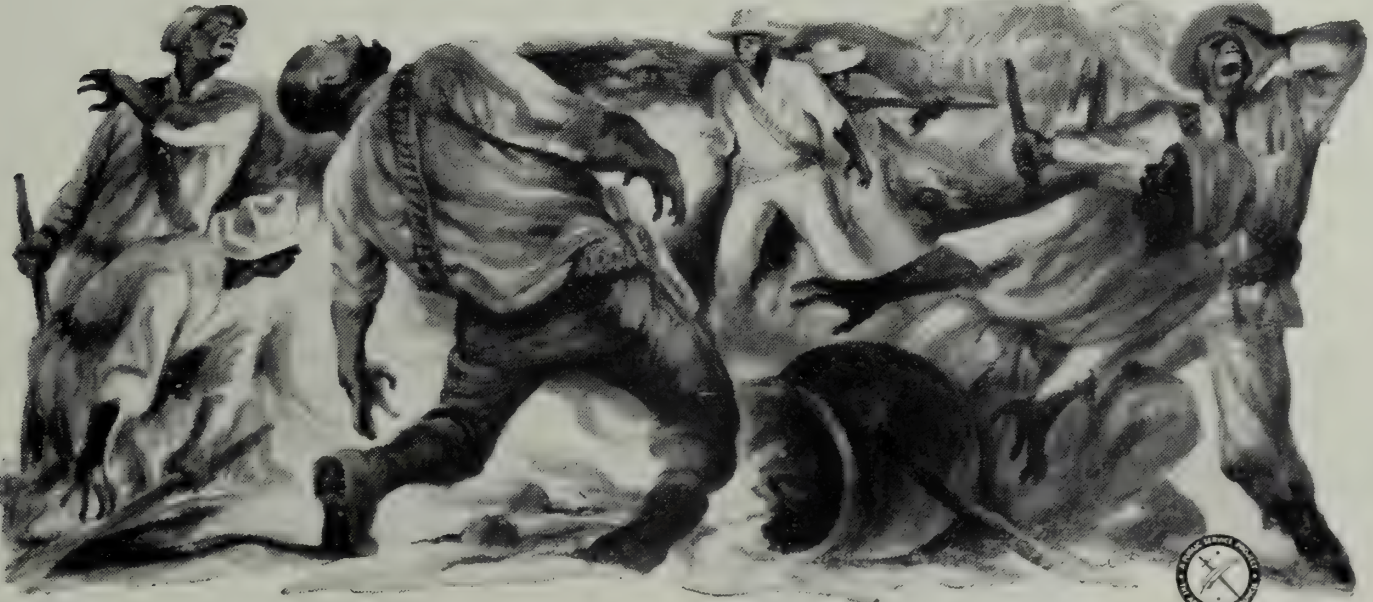

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REFERENCES

(1) Kempe, C. H.: *California Med.* 84:242, 1956. (2) Petersdorf, R. G.; Bennett, I. L., Jr., & Rose, M. C.: *Bull. Johns Hopkins Hosp.* 100:1, 1957. (3) Spink, W. W.: *Ann. New York Acad. Sc.* 65:175, 1956. (4) Yow, E. M.: *GP* 15:102, 1957. (5) Altemeier, W. A., in Welch, H., & Marti-Ibanez, F.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 629. (6) Rantz, L. A., & Rantz, H. H.: *Arch. Int. Med.* 97:694, 1956. (7) Wise, R. I.; Cranny, C., & Spink, W. W.: *Am. J. Med.* 20:176, 1956. (8) Smith, R. T.; Platou, E. S., & Good, R. A.: *Pediatrics* 17:549, 1956. (9) Cohen, S.: *Postgrad. Med.* 20:483, 1956. (10) Royer, A.: Scientific Exhibit, 89th Ann. Conv. Canad. M. A. Quebec City, Quebec, June 11-15, 1956. (11) Bennett, I. L., Jr.: *West Virginia M. J.* 53:55, 1957. (12) Altemeier, W. A.: *Postgrad. Med.* 20:319, 1956. (13) Felix, N. S.: *Pediat. Clin. North America* 3:317, 1956. (14) Metzger, W. I., & Jenkins, C. J., Jr.: *Pediatrics* 18:929, 1956. (15) Woolington, S. S.; Adler, S. J., & Bower, A. G., in Welch, H., & Marti-Ibanez, F.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 365.

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Curiosa et Trivia

William B. McCunniff, M.D.

A survey of war wounded (at Anzio) revealed that only 32 per cent wanted a pain relieving drug a few hours after their injury. About 83 per cent of civilian postoperative patients ask for some analgesic.

Manual workers produce more efficiently under red, orange, yellow, green or blue illumination than they do under ordinary white lighting.

Americans spend about ten billion dollars a year for medical care. At the same time, they spend twelve billion for recreation, fourteen billion for alcohol and tobacco, twenty-three billion for private auto purchase and maintenance, twenty-four billion for clothing, twenty-seven billion for housing, thirty billion for household operation, and sixty-three billion dollars for food.

The Greek root word from which we derive the word "pharmacist" is *pharmacopeus.* This unsavory gentleman was a professional poisoner or purveyor of poisons.

Life expectancy (at birth) has risen consistently in the United States for the last twelve years. In 1955, for the first time, it reached three score and ten—70.0 years.

About 17 per cent of American doctors have switched their political party allegiance since they were medical students.

Dog days? The incidence of rabies is about the same in summer and winter. It is highest in the spring and shows a slight decrease in the fall.

A recent study of physicians' obituaries and probate court records revealed that one out of eight was in debt at the time of his death; one out of three left net assets of less than $10,000; and one out of three left no will. Only one physician in eight survived his wife.

More schools and college buildings burn than any other type of public structures. Happily, hospitals have the lowest rate of fires.

Farming accounts for a third of the accidental deaths in the U. S., led only by motor vehicle and "work" accidents. Horribly, about 11 per cent of the farm dead are children under 5 and another 5 per cent are between 5 and 9.

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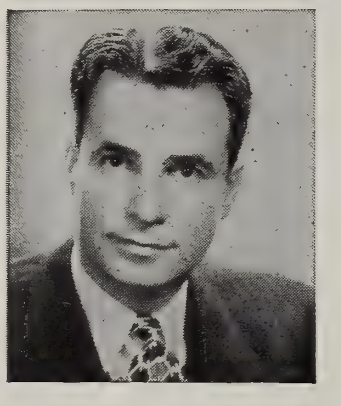
Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO



At the Judicial Council meeting Dr. H. S. Crawford, Harrisonville, stated that he knew it was unnecessary to eulogize the Secretary and the grand place he occupies, so he wished to place the name of Dr. E. J. Goodwin in nomination to succeed himself as Secretary and Editor of the Association. Dr. W. J. Ferguson, Sedalia, moved that the prominent position occupied by our State Journal be not overlooked, and that the nominations for Secretary and Editor be closed. Carried.

"I wish to call your attention to a law that was passed by the last General Assembly, making it possible now for counties to vote bonds for the establishment and maintenance of a county general hospital. The law provides specifically and wisely for its administration and maintenance, and makes it possible to care for all classes of sick, including the tuberculous. This law as patterned after the Iowa law, which is working successfully. The law is House Bill No. 746, introduced by Representative Toalson of Howard County. Senator Harris of Boone County introduced the same bill in the Senate. He generously assisted Representative Toalson, letting his own bill die."

Frederick L. Pohlmann, member of the St. Louis Medical Society, member of the Missouri Association, Fellow of the American Medical Association, good sportsman, loyal friend, upright citizen—while engaged in the performance of professional duties was murdered May 14, 1917. Secretary Daniels has recommended to the President for appointment as assistant surgeons of the Navy 270 members of the Medical Reserve who have passed the examinations and qualified for appointment. Following is the list of those recommended from Missouri: Frank L. Kelly, Guy D. Callaway, Robert Mueller, Felix P. Keaney, John L. Shipley, Cecil M. Burchfiel, Thomas P. Brennan, Wm. W. Russell and Frank B. Wallace.

Dr. James C. Welch of Salem has been appointed physician to the State Penitentiary. Dr. J. L. Eaton of Bismarck has been elected superintendent of State Hospital No. 4 at Farmington. Dr. Charles H. Mayo of Rochester has been appointed aide to Surgeon-General Gorgas of the U. S. Army.

TWENTY-FIVE YEARS AGO

Dr. M. A. Bliss, St. Louis, a member of the board of managers of Missouri eleemosynary institutions, was presented a medal for conspicuous service in private life on June 24, the first to receive the Distingushed Service Medal since the authorization of the medal by the last legislature. Dr. Bliss was was the organizer and for several years president of the Missouri Mental Hygiene Society and is now honorary president.

There will be no epidemic of infantile paralysis in this country this year, according to Dr. Hugh S. Cumming, Surgeon General and Director, United States Public Health Service. It was more prevalent in the United States in 1931 than in any year since the record breaking epidemic of 1916 and one intense outbreak does not follow another within a year in the same community. It is estimated that the American public wastes $15,000,000 a year on fraudulent "cures" for incurable diseases.

Dr. William Marcy Hindman, son of Robert C. and Mary Hutchins Hindman, was born near Tarkio, Missouri, March 28, 1884, and died while in the office as President of the Nodaway County Medical Society on June 26, 1932, at his home in Burlington Junction. Dr. Cornelius C. VanderBeck, St. Louis, a graduate of the Jefferson Medical College, Philadelphia, 1872, died of cerebral hemorrhage at his home June 15, aged 79 years. In 1929 Dr. VanderBeck was one of thirteen physicians honored by the St. Louis Society on the occasion of the culmination of 50 years of practice. He held the longest record of any member of the group present at the ceremony, his record being fifty-seven years.

The Cass County Medical Society met in regular session July 9 at Drexel, at the home of the president, Dr. B. O. Hartwell. A chicken dinner was served by the Auxiliary in the basement of the Baptist Church. The Society was addressed by two interesting speakers, Drs. O. J. Dixon and Joseph E. Welker, of Kansas City. The Society voted to give 4-H Club members a health examination on "Health Day."

The Five County Medical Society of Southeast Missouri held its second quarterly postgraduate session at New Madrid, June 14, at the Court House at 7:00 p.m. The ladies of the Methodist Church served a splendid dinner in the basement of the Court House. There were thirty-seven members present and a few visitors. Dr. W. N. O'Bannon, New Madrid, presided over the meeting in the absence of the president, Dr. Claude McRaven, Marston.

TEN YEARS AGO

Cyrus E. Burford, M.D., St. Louis, was elected president of the Association of Genito-Urinary Surgeons of America at the annual session of the

(Continued on page 733)

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Woman's Auxiliary

MRS. ARMAND D. *(Ruth Anne)* FRIES, *President*

No organization is ever greater than the cause which brought it into existence. No group ever rises suddenly to usefulness. A stable organization is based on nourishment and gradual growth of the idea which brought it into being. Our Auxiliary is no exception to these facts. We are forced to recognize that the organization of physicians' wives into national, state, district and county bodies was simply recognition of a long existent status. When American women were just beginning to take an active interest in community affairs, physicians' wives became stimulated by a great desire to understand health problems and to help in the solution of these problems. Our first auxiliaries were formed by wives of physicians who attended medical meetings with their husbands. Although one of our first stated objectives is "To cultivate friendly relations and promote mutual understanding among physicians' families," no doubt in time physicians' wives became weary of the entertainment provided for them by the local entertainment committees and in the early 1900's there were several organized state groups of wives of physicians (among them Oklahoma, South Dakota, Maine, Montana) which met at the time of the state medical association conventions. In 1918, the Texas Auxiliary was organized and by 1922 had become the first State Auxiliary to be organized and functioning on the state, district and county levels.

In May 1922, with aims and purpose similar to the Texas auxiliary, at the Statler Hotel in St. Louis, a meeting was called to perfect a temporary organization of the Woman's Auxiliary to the American Medical Association. Though only a few interested and determined wives of physicians were present at this meeting, in June 1923, a permanent organization was perfected at which ten states were reported organized and eight other states in the process of organization. At the 34th annual auxiliary convention in New York City, June 3-7, 1957, with headquarters in Hotel Roosevelt, representatives from a membership of 75,000, including the District of Columbia, Alaska and Hawaii, comprised the registration. Though each year has meant the end of one road, and the approach of a new one, change has been within tradition, and though our activities have been greatly extended, our objectives have remained essentially the same as they were in the beginning. The National organization advises state and county auxiliaries, and adjusts their activities. Reports of these varied activities show that the objectives of the Auxiliary have become realities.

Mrs. Paul C. Craig, of Wyomissing, Pennsylvania, is the newly installed President. Industrious, creative and courageous are three features of our new President. "Togetherness" is her theme, and the slogan for her year, "Health is a joint endeavor." She stresses the importance of each auxiliary and its local medical society working as a team. Others elected to the A.M.A. Auxiliary Board are as follows: Mrs. E. Arthur Underwood, Vancouver, Washington, president-elect; 1st vice president, Mrs. Frank Gastineau, Indiana; 2nd vice president, Mrs. Ross P. Daniel, West Virginia; 3rd vice president, Mrs. Richard F. Stover, Florida; 4th vice president, Mrs. M. A. Gold, Montana; 5th vice president, Mrs. William H. Evans, Ohio; constitutional secretary, Mrs. F. Erwin Tracy, Connecticut; treasurer, Mrs. Harlan English, Illinois; finance secretary, Mrs. Jay G. Linn, Pennsylvania. Directors for two years: Mrs. Harry F. Pohlmann, New York; Mrs. C. Rodney Stolz, South Dakota, and Mrs. Carl E. Burkland, California. Directors for one year: Mrs. Robert Flanders, New Hampshire; Mrs. George H. Garrison, Oklahoma; Mrs. C. R. Pearson, Wisconsin, and Mrs. William G. Thuss, Alabama. Parliamentarian: Mrs. Mason G. Lawson, Arkansas.

This is a year in which it is hoped that each state and county auxiliary will review its objectives and activities, as they relate to them. How well do our projects carry out our objectives? We believe you will find that the meetings and projects will divide into two categories: A. The customary agenda of activities which are all of those which national, state and county auxiliaries usually take part in, and B. priority projects, which will be those which this administration will want to emphasize this year, namely,

(a) American Medical Education Foundation: Raising funds by both physicians and auxiliaries, interpreting the service of medical schools to the public. A check for $113,581.77 from the Woman's Auxiliary to the A.M.A. was presented to Dr. George A. Lull, vice president of the American Medical Education Foundation, by Mrs. Robert Flanders, immediate past auxiliary president, and Mrs. F. M. Fargher, the Auxiliary's A.M.E.F. chairman, for distribution to the nation's medical schools. Missouri contributed $1,914.24, more than double the amount given last year. It is our goal again this coming year, to subscribe a minimum of $1 per member. This project heads the list of activities we are again asked to include this year, and perhaps for many years to come.

(b) *Today's Health:* More subscriptions to this excellent health education publication. However,

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■ If the Far East Flu spreads across the United States, it may lead to the worst epidemic since 1918. That is an opinion publicly expressed today by many leading physicians and health officers in this country.

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

More than eighty visiting physicians attended the Annual Spring Clinical Conference in the auditorium of the University of Missouri Medical Center on May 15 and 16. This excellent program, sponsored by the University of Missouri Medical Center, the Missouri Academy of General Practice and the Missouri Heart Association, packed two full days of splendid clinical instruction into a streamlined teaching package. Outstanding members of the guest faculty were Dr. Irving Wright, Professor of Medicine, Cornell Medical College; Dr. Con Cassels, Professor of Pediatrics, University of Chicago, and Dr. Marc Musser, Professor of Medicine, University of Wisconsin. The guest faculty was most ably abetted and supported by the faculty of the University of Missouri Medical Center.

Members of the Missouri Academy of General Practice attending this Spring Conference were particularly gratified to attend the presentation of the $1,000 Mead Johnson Certificate of Award to Dr. Benedict A. Moranville, II, who started his residency in general practice at the University of Missouri on July 1. In presenting the award, Dr. Charles E. Martin, President of the MAGP, pointed out that in 1952 the American Academy of General Practice established a program of scholarship awards to assist recent medical graduates interested in general practice to complete a residency in general practice. Funds for the program are provided by the Mead Johnson Company. This spring ten young physicians are completing a year of graduate training under this scholarship program. Each of ten young physicians is scheduled to receive a $1,000 award when he starts his training in an approved general practice residency in July of this year. The ten winners of the 1957 awards were selected from among interns and medical officers on active duty who are interested in general practice as a career and who are in a position to start a general practice residency in 1957. The $1,000 award is paid in twelve equal monthy installments while the winner is completing an approved residency in general practice. The Missouri Academy is proud of its part in this program to stimulate interest in general practice and to assist young physicians in acquiring an additional year of training.

Apropos, of the residency programs the residency review committee for general practice met in New York on June 8 at the close of the A.M.A. meeting. Seventy general practice residency programs which have been inspected during the last six months by surveyors from the A.M.A. Council on Medical Education and Hospitals were evaluated. Over one half of the seventy programs were new applications. The remainder were existing programs inspected routinely. Although many of the existing programs reported positions filled by foreign graduates, it was encouraging to note that an increasing number of hospitals stated that positions were filled by U. S. graduates.

All members of the Missouri Academy of General Practice are urged to submit the names of any candidates for residency training in general practice to the Residency Review Committee or to any other state officers who will forward the nominations to the proper committee.

On May 12 the St. Louis Academy did it again with their Annual Spring Scientific Symposium held at the Chase Hotel. Four hours of rich educational fare was provided by an outstanding panel of guest speakers including Dr. Roscoe L. Pullen, Dean of the University of Missouri Medical School; Dr. Frederick H. Falls, Chief of the Gynecology Staff, Cook County Hospital, Chicago; Dr. Waltman Walters, Surgical Sections, Mayo Clinic, and Dr. R. B. Turnbull, Department of General Surgery, Cleveland Clinic. While their husbands were being enlightened the ladies were being entertained at cards and refreshments elsewhere. Following the afternoon all enjoyed a cocktail hour through the courtesy of Baker Laboratories following which a delectable dinner added the final fillip to a most enjoyable meeting.

In its efforts to further broaden and enrich its educational program of general practice the Missouri Academy of General Practice essayed a rather unique experiment in "out-state" teaching this spring. With the financial aid of the Missouri Heart Association together with the excellent teaching resources of the Medical Department of the University of Missouri Medical Center, two courses on cardiac auscultation have recently been presented. These courses are considered unique because they represent the first effort to take the visual and auditory aids in cardiac auscultation out of the medical centers to the component chapters of the Missouri Academy. Both of these three hour sessions employed the oscilloscope for the visualization of heart sounds together with a tape recorded playback machine with ear pieces for twenty-five students. The sessions were presented by Dr. John Killough, Associate Professor of Medicine, University of Missouri Medical School, on May 23 at the St. Francis Hospital in Cape Girar-

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Missouri Medicine in Review

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association in Absecon, New Jersey, on June 5. E. M. Moore, M.D., Sr., Higginsville, recently was appointed physician at the Confederate Home at Higginsville. A. N. Arneson, M.D., St. Louis, was installed as president of the American Radium Society at the annual session of the society in Atlantic City in June. George H. Thiele, M.D., Kansas City, was installed as president of the American Proctologic Society at the annual meeting of the Society in Atlantic City on June 9. James Barrett Brown, M.D., St. Louis, has been awarded the Legion of Merit for his work as chief of plastic and maxillofacial surgery at Valley Forge General Hospital from June 1943 to August 1945.

The St. Louis County Medical Society held its regular annual dinner meeting at the Missouri Athletic Club, St. Louis, May 28, at 8:00 p.m. with 253 members and guests present. Andrew Conway Ivy, M.D., Chicago, spoke on "Nazi War Crimes of a Medical Nature." It was brought out that these war crimes occurred and gained momentum under state medicine and political despotism to such an extent that even Hitler could not stop them. A vote of thanks was given Dr. Ivy for his presentation and for giving his time for the trip just prior to leaving for Germany to work further on the War Crimes Investigations.

The Fifth Councilor District met in Columbia on June 16 with F. J. Jolley, M.D., Mexico, Councilor, presiding, and the Boone County Medical Society acting as host. Harold C. Lueth, M.D., Dean of the Medical School, University of Nebraska, and Professor of Medicine at the same institution, discussed some of the problems confronting medical educators who are concerned with the problem of training doctors for rural areas.

Woman's Auxiliary

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we really put this subscription project over the past year with a total of 75,409 and 6/12 subscription points earned during the period from June 1, 1956, through midnight April 15, 1957. This is an increase of nearly 19,000 subscription credits produced during the previous year. Missouri State Auxiliary was among those honored at the Annual "Today's Health Honor Breakfast" at the recent A.M.A. meeting. Twenty-two state and territorial auxiliary presidents were invited, and additional honored guests. Our state quota: 1,756; state credits: 5,146 2/12; our state percentage 236 per cent.

(c) Legislation: Working through the state medical association and auxiliary committees to experiment with novel ways of making legislation interesting, effective and understanding for the individual member.

(d) Safety: At home, at work and on the highways. Working with the A.M.A. on the medical aspects of automotive injuries and deaths—projects of emphasis should deal with driver training, safety features in automobiles and alcohol chemical tests for intoxication.

The national treasurer tabulates and determines the number of delegates each state is entitled to have. Missouri was allowed seventeen delegates to the Auxiliary convention, and I regret that only four of us responded to roll call for Missouri's delegation at the opening meeting on Tuesday, June 4. My Doctor and I arrived in New York Sunday evening, registered Monday and attended the instruction panels that day and remained in attendance at each meeting until their close on Friday, June 7 and, though I felt a bit depressed because of our poor representation, I came away enriched with knowledge and the pleasant association with so many fine wives of physicians from all over our nation.

At present, plans are being formulated to hold our Fall Board meeting at the Elms Hotel in Excelsior Springs, on Sept. 20-21. Clay County Auxiliary members are to be our hostesses, Mrs. M. W. Chastain, the chairman, and we are certain that we will have a pleasant visit and an instructive and interesting meeting beginning on Friday afternoon; followed by dinner and a "fun program" for the evening, with the following day devoted to progress reports from the state board members. Plans have not been completed but more details will be forthcoming. This is a beautiful place, and it would be most encouraging and helpful if you, our doctors, encourage your wives to attend this meeting; in fact, you are invited to attend any and all of our meetings and since this is a resort hotel, why not make it a weekend vacation for both your wife and yourself?

Missouri Academy of General Practice

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deau. The afternoon session was attended by some fourteen men and the evening session by twenty. A similar session was presented by Dr. J. M. Mart, University of Missouri, with the cooperation of the Southwest Chapter of the Missouri Academy at Springfield on June 20.

This year's Annual Session of the Missouri Academy of General Practice will again be held in Jefferson City. The dates are Wednesday and Thursday October 30-31, 1957, at the Hotel Governor. Under the able chairmanship of Dr. Wyeth Hamlin, the educational committee has already completed a program which defies the usual superlatives customarily employed in announcing a forthcoming medical meeting. This program promises to be especially outstanding not only because of the unusual number of eminent teachers and speakers participating, but also because of the departure from the usual and rather stereotyped organization of program material employed at previous sessions. On Wednesday morning, October 30, there will be a symposium on "Endocrinology"

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Missouri Medicine

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Aging and Chronic Illness

Medical Aspects

H. B. MULHOLLAND, M.D., *Charlottesville, Virginia*

MEDICAL SCIENCE may rightly be held responsible for two of the major problems facing the world, and more particularly, the United States, today. In 1900, for example, the average duration of life was 40 years. Now men live to 68, while females have a life span of 70 plus, which can be attributed to several factors. One factor is advances in preventive medicine by inoculations for typhoid, diphtheria, tetanus and such; two, better sanitation, improved housing and adequate nutrition. To this must be added contributions made by antibiotics, better and more frequent hospital care and the major advances in medical research would have made this one of the healthiest nations of the world. It is important to remember that in 1900 there were only three million people 65 years of age or older living in this country. By contrast, in 1956, there were 14,500,000 people in this age group. By the year 1965, it is predicted that there will be 25,000,000. Perhaps a more important figure is that there will be 75,000,000 over 45 and of this number, with the present morbidity rate, appoximately 20,000,000 of these will have cardiovascular disease of some sort, another twenty million some form of arthritis, and fifteen million mental disorders.

H. B. Mulholland, M.D.

With many of these people in the labor force or actively employed, the impact of this group on our general economy is bound to be of great magnitude. The average age of retirement, for what was considered good and sufficient reasons, has been set at around 65 for labor, industry and educational institutions. Now, if one looks around, he finds many individuals who are perfectly capable mentally and physically of making an important contribution to whatever position they hold, at this time of life. Indeed, their wisdom and skills are oftentimes ripened into maturity. To cope with this problem, there must be a realization that retirement age should be physiologic rather than chronologic. Younger people must be served but so must the oldster. It should be possible to use these individuals in a consultative capacity, letting the young still achieve the top jobs. To accomplish this will necessitate broad education of the public and others concerned in the complexities of the situation. Unless this is done, one can envisage serious consequences in which the young will have to carry this burden because, without work, they must be supported. Recent surveys have conclusively shown that most of these people want to work, with only one in twenty-five indicating a wish to retire. Government grants for the purpose of supporting this group cannot go on increasing to astronomic levels.

Loneliness, rejection, lack of motivation, and insecurity are the result of mental and physical inactivity, which may follow in the wake of enforced retirement.

In homes for the aged, emphasis on recreational and occupational therapy have resulted in an astounding reduction in the suicide rate in the old age group. Preparation for this era is now receiving its proper emphasis with preretirement conseling, development of hobbies and adult education, which bring new interests better integrated to this period of life.

What are the responsibilities of the medical profession in this era? First and most important is to continue present research activities to the broad aspects of this problem, endeavoring to fathom the reasons why cells age, which may involve a study

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From the Department of Internal Medicine, University of Virginia Hospital and the School of Medicine, University of Virginia, Charlottesville, Virginia.

of intricate metabolic functions of these cells. Structurally, many may show little or no change, so one must seek a possible solution in the derangement of the enzyme systems. It is now known that young cancer cells have an entirely different basic metabolism than is found in the normal cell. Environment and the stress of modern life may also modify and contribute to the aging process, which is a field just now being recognized. Two decades ago, medical literature was replete with discussions of vitamins and deficiency diseases. Nowadays, these conditions are almost unknown in the civilized world. By contrast, the line must be held against over-nutrition. Obesity is one of the penalties of modern society, and our way of life and its affect on longevity is unquestioned. More recently medical and lay literature is filled with a discussion of the role that excessive intake of fats and cholesterol may play in the important problem of arteriosclerosis. Should we follow the "Bantu" and other races, who eat a low fat diet, or is it the total fat which is important, or, perhaps the type of vegetable or animal fat ingested? What part does an elevated blood cholesterol play in the hardening of the arteries? An answer to this might delay the aging process and further increase the life span. In my opinion, there is no reason as yet to somersault ourselves into changing the cooking and eating habits of our patients, but keep an open mind about this question. Maintenance of a normal weight is paramount in the older age group.

Further efforts at primary prevention of disease must continue unabated. The widespread use of polio vaccine is an impressive example of a method of attack. Secondary prevention through the early detection of disease entities, through periodic check-ups, the use of antibiotics and perhaps the judicious use of hormones may make further contributions in this area. One should pause, however, to consider the possible ill effects of many of these agents, a striking example of which is prolonged and excessive use of the steroids. The use of such agents as penicillin and the sulfonamides in the prevention of recurrences of rheumatic fever is now well established.

It is not sufficient for physicians to just treat the sick. They must be aware of the ever growing population over 65, which increases at twice the rate of that of the general population. With its myriad of problems, economic, social and medical, what a political pressure group this 70,000,000 people over 40 years of age can be.

Aging brings in its wake the problems of long term illness in ever increasing numbers. Of this age group, about two fifths have some form of disability, and not only are they more susceptible to disease states but also to accidents. Of these individuals 1.1 million are confined to hospitals, and another 4,000,000 are in their own homes.

For seven years, the Commission on Chronic Illness has studied this problem, resulting in the first volume containing facts and recommendations in the care of the long term patient, and is just now published. It is replete with facts, figures, suggestions and recommendations. What are the major difficulties encountered in this group? First, these patients should be located in the proper type of institution, suitable to their needs at the particular stage of their illness. Every general hospital of any size should have an active unit devoted to the care of the chronically ill where such an individual can be cared for during the acute stages of his disease; have his condition properly evaluated; initiate the necessary rehabilitation proceedings, and, above all, carry out the best disposition of his case for future care.

In a few cities, there are separate chronic disease hospitals with not only care for the chronically ill but which must also contain all of the features necessary for the operation of a general hospital. In the opinion of the Commission on Chronic Illness, this usually is an unnecessary duplication of equipment and services. On the other hand, it cannot be denied that such institutions do a marvelous job, but it is a luxury.

If general hospitals or other institutions caring for these people could also have in close physical proximity a unit or facility which would give some general care, minimal nursing and medical supervision with rehabilitation tailored to the patients needs, much might be done to alleviate the high cost of care necessitated by continued confinement in a general hospital. I am now particularly talking of so-called convalescent home type of facility. It is common knowledge that many general hospitals are now caring for patients who would be better off in the less expensive structure. A committee under the chairmanship of Dr. Howard Rusk recently surveyed the city hospitals of New York City and found that 20 per cent of their patients should be in such an institution, where they could be cared for at the rate of $6 or $7 per day as compared with the average rate of $21.00 in New York City hospitals. Not only is the cost less but they are not surrounded with sick people, but live in an atmosphere in which they are stimulated to become self-sufficient. Patients with ununited fractures of the hip and hemiplegia are examples of those whom can be given occupational therapy, social activities, companionship and recreational leadership, much of which could be carried out by aides or orderlies. It is estimated that this would save the City of New York six million dollars per year. It is also in the realm of possibility that with the decreasing morbidity of tuberculosis that some of the beds in these institutions may be available for the chronically ill. Indeed, some states have already turned over some of their tuberculosis beds for this purpose.

NURSING HOMES

These institutions do play an important role in the care of the long term patient and the aging. There are now, according to recent surveys, 400,000 people in such facilities. These reports have shown the necessary role that nursing homes play, but they also have pointed up the wide variation in the character of service rendered, from custodial care with little or no medical supervision, fragmentary nursing and no rehabilitation, to excellence in all of these categories. It is up to the states and communities to see that these important units are not only well regulated but that their physical appointments are up to standard. Many states, such as Washington, have categorized their nursing homes, some for general medical care, some for aging and others for the senile and, indeed, special ones for rehabilitation. However, efforts at rehabilitation should be made in every home.

FOSTER HOMES

These institutions are necessary for the single person or individuals without a home and, in most communities, there exists houses and families which may give this type care to the forlorn aged, or chronically ill person. Incidentally, of no little consequence is the fact that the rendition of this service provides income for those caring for these people.

PATIENTS' HOMES

As before mentioned, 4,000,000 of the chronically ill are in their own homes, which is the proper location for them provided that the proper surroundings and services are available. These older and chronically ill people are much happier if they can be cared for surrounded by their own people and cherished belongings. It should, therefore, be the ultimate purpose wherever possible to get chronically ill patients back in their homes. It is most essential, too, that their own personal physician be constantly appraised of the status of his chronically ill patient wherever he may be, and that eventually the family physician should again assume the responsibility for his treatment and care. To be sure, the family doctor will need some auxiliary help, and let me mention that it is well recognized that this help is in short supply.

Such services as are rendered by the visiting nurse, who takes care of the minimal medical needs, are necessary and valuable. Of more recent development is the care rendered by so-called homemaker services, who do the household chores, cooking, order food, even take patients out in a wheelchair, combining all of the small things that tend to bring comfort to the patient. I am certain, too, that one can stimulate the local citizens, women especially, to lend an important helping hand. Every community has a nucleus of such individuals who have the urge to help others. There may be too many untouched resources, such as the use of nurses on a part-time basis, many of whom are married and raising a family, who would like a few hours work every day.

COMMUNITY HOSPITALS

Since the Hill-Burton Act has built small hospitals in rural areas, these institutions too have come to play an important role in the care of the aging and chronically ill, even to the point of contributing to the financial support of these structures. Perhaps more emphasis should be placed on this type of care in the smaller community especially, and some thought should be given by those staffing these rural hospitals to the care and rehabilitation of this group. Every doctor must be concerned, even though his contribution is not a major one.

REHABILITATION

If the care of the chronically ill is to be successful, there must be an appropriate and adequate rehabilitation facility available in every set up. Without this only desultory care can result. With rehabilitation, many disabled persons can be self-supporting and, indeed, contribute materially to the support of others. In California, in one instance, $8,000 was saved in welfare costs by the rehabilitation of one individual. It is estimated that 2,000,000 men and women of working age could, if provided with rehabilitation, become productive. In 1953, it was estimated that $30,000,000 in income taxes was contributed over a three year period by patients who had been rehabilitated, which exceeded grants for this purpose by more than 30 per cent. In 105 physically disabled individuals, seventy-six were rehabilitated at a cost of $18,287 with an annual saving in welfare costs of $440,000! Occupational therapy and teaching new skills may pay marvelous dividends. One firm in Connecticut has evolved a unique idea, hiring only people more than 65 years of age or those who are disabled. Their success has been phenomenal. Rehabilitation cannot always be afforded in small communities, but it is quite possible to set this up either on a regional basis or have traveling teams in rural areas to supply this need.

COMMUNITY ORGANIZATION

Fundamental to the success of caring for the aging and chronically ill is the necessity of having a live and functioning community organization which is cognizant of the needs, aware of the existing facilities and able to advise the physician where his patient can be properly cared for at the particular stage of his illness. Too, there must always be a free flow of patients from one institution or set-up to another and no one should be allowed to remain in a facility not suited to his needs.

OBJECTIVES

The American Medical Association has recently set up a Committee on the Aging, which has the following objectives:

1. To explore problems concerned with the medical, biological, psychologic and social aspects of aging;
2. To collect data concerning energy mainte-

Serum Hepatitis

Occurrence Following the Use of Human Fibrinogen

JOHN S. SKINNER, M.D., *St. Louis*

THE OCCURRENCE of homologous serum hepatitis (hepatitis B) in certain patients treated with human fibrinogen is an unfortunate complication of an otherwise remarkable new therapeutic tool. It is the purpose of this paper to emphasize the importance of this complication and to summarize the experience of several St. Louis area hospitals in relation to it.

THE USE OF FIBRINOGEN IN CERTAIN OBSTETRIC AND SURGICAL ABNORMALITIES

In the last six years many articles have appeared, especially in the obstetric literature, dealing with the occurrence of acquired hypofibrinogenemia and with the use of human fibrinogen fraction to correct it.[1] De Lee is credited with the first description of the development of a fatal hemorrhagic diathesis in a patient with abruptio placenta in 1901; Dieckmann in 1936 with the first report of a marked lowering in blood fibrinogen in a similar case; and Maloney, Egan, and Gorman in 1949 with the first successful use of human fibrinogen (Cohn's Fraction I) in the treatment of such a patient.[2]

Premature separation of the placenta was the first obstetric abnormality to be associated with fibrinogen depletion and remains the leading related condition. Other responsible obstetric disorders include prolonged retention of a dead fetus, amniotic fluid embolism, toxemias of pregnancy, septic abortion and Caesarean section.[3] Hypofibrinogenemia has been found also in cases of pancreatic carcinoma, following pulmonary surgery and during vaginal surgery.[4]

A recent report described low fibrinogen levels in nine surgical patients.[5] The procedures included: (1) an abdominal perineal resection for cancer of the rectum; (2) left adrenalectomy for Cushing's syndrome; (3) aortic graft for abdominal aneurysm; (4) radical mastectomy for carcinoma of the breast; (5) tonsillectomy; (6) porto-caval shunt in a cirrhotic; (7) pancreatectomy for pancreatitis; (8) cholecystectomy; and (9) partial gastrectomy for duodenal ulcer. Except in case 8 in whom the fibrinogen level was not obtained, and in case 9 in whom the level was zero the blood fibrinogen ranged from 110 to 164 mg. per 100 cc. Although these are above levels usually considered critical for normal clotting, it is clear that the general surgeon as well as the obstetrician must be aware of the abnormality.

Fibrinogen, which is formed in the liver, maintains a level in the blood normally between 200 and 400 mg. per 100 cc. Kinch[6] studied forty-five normal pregnancies and found a tendency for the fibrinogen level to rise slightly up to delivery. He reported an average level in the forty-five women at delivery of 325 mg. per 100 cc. Ordinarily, therefore, the usual patient is well protected against untoward postpartum bleeding.

Under certain circumstances the blood fibrinogen falls near or below levels critical for adequate clot formation (50 and 100 mg. per 100 cc.).

Of the theories advanced to explain loss of blood fibrinogen in these cases the most widely accepted is that mentioned by Page, Fulton and Glendening.[7] This theory postulates that placental or amniotic thromboplastin escapes into the maternal circulation. Prothrombin is converted to thrombin, which with the fibrinogen forms fibrin. The fibrin clots, which in this incidence are small, are caught in the pulmonary vascular tree where, if death occurs soon enough, they can be found by

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Read before the St. Louis Internists' Club, January 24, 1957.

Instructor, Clinical Medicine, Washington University School of Medicine, St. Louis.

Aging—Continued

nance, fatigue control, and the preservation of specific motivation;

3. To promote research in these areas;
4. To inform the medical profession of the availability of information regarding the aging processes;
5. To stimulate medical society interest in the problems of the aging; and
6. To impress upon the practicing physician the important role he can play by assuming community leadership to enrich the lives of older citizens.

To face this responsibility, we, as doctors, must make ourselves take an active interest in these problems, which, if not solved satisfactorily by us, will in time be taken over by Government. After all, our communities may accomplish much, not only in helping to finance such facilities, realizing that in the long run by so doing it may reduce taxes and costs, but also using such aids as social security, comprehensive insurance, annuities and retirement plans as as resource in the financial care of these patients. We have the training, the intelligence and all that we need is the will to do the job.

the pathologist. If not, the clots are lysed and removed. The process of continuing defibrination reduces available fibrinogen and, if it continues long enough and rapidly enough, a serious clotting defect develops. With insufficient circulating fibrinogen normal clotting cannot occur and fatal hemorrhage is apt to follow.

Page and his coworkers were able to reproduce hypofibrinogenemia artificially by infusing human placental thromboplastin intravenously, thus lending strong experimental evidence in support of this theory.

To be successful, treatment of acquired hypofibrinogenemia must be based on procedures which will eliminate the condition causing the loss in fibrinogen and which will elevate the abnormal blood level of fibrinogen. It is not enough to attend to one of these features and to ignore the other. In abruptio placenta, for example, any attempt to raise the patient's fibrinogen level without emptying the uterus at the same time will be met most usually with only temporary success. About as fast as the fraction can be infused the patient's thromboplastin can be expected to remove it. On the other hand, to empty the uterus without ample coverage by intravenous fibrinogen is courting disaster.

Whole blood, although needed to replace that which has been lost by hemorrhage, cannot be expected to restore to normal lowered fibrinogen levels. The quantity of fibrinogen per unit of blood, even if fresh, is too inadequate to do the job. During storage, bank blood loses its fibrinogen and is even more unreliable. Crosbie, et al., showed that fresh blood contained an average of 267 mg. of fibrinogen per 100 cc., while after storage this dropped to an average of 163 mg. per 100 cc.[8]

The treatment of hypofibrinogenemia based on these principles has been found successful by many observers and is now widely accepted. Many lives are being saved as a result. The subsequent occurrence of serum hepatitis in some patients following the use of this important blood product has been reported and is a major complication of the treatment.

SERUM HEPATITIS

The risk of transmitting hepatitis B virus through the media of blood and blood products is of course well known. Fortunately present methods of preparation have eliminated it from certain blood products now available such as albumin, gamma globulin, and the antihemophilic globulin fraction.[9]

As Shank[9] points out the carrier rate of hepatitis B virus in the blood donor population is difficult to determine accurately with the methods at present in use. He suggests that it is probably less than 1 per cent, a figure quite in keeping with the experience of other reporters. A more exact carrier rate incidence may be possible now utilizing tissue culture methods.[10]

Whatever the carrier rate, hepatitis B has been reported to occur in less than 1 per cent of recipients of whole blood transfusions.[11]

The icterogenic properties of pooled plasma have been studied extensively. Several methods of sterilization, such as ultra violet irradiation and treatment with nitrogen mustard, have been variously recommended and found ineffective.[12] There are no presently accepted tests of blood samples which would help in the elimination of those that are contaminated. Screening donors has lessened but not stopped the occurrence of this complication. One significant lessening of the incidence in those recipients of dried pooled plasma occurred when the size of the donor pool was limited. Dried plasma made from pools of 250 to 300 donors resulted in serum hepatitis in 10 per cent of recipients. When the pool was cut to ten donors the incidence dropped to 1 per cent.[13]

As a result of Allen's observations, however, the risk from plasma now can be almost completely eliminated.[11] He showed that storing plasma in a liquid state at room temperature for three months or more failed to result in a single case of hepatitis in 1,960 patients given 13,490 units of plasma. This was compared with twenty-six cases of serum hepatitis developing in 7,893 patients who received 28,549 units of whole blood. Both of these studies covered a span of nine years.

There are other blood products known to be icterogenic and they include thrombin and fibrinogen. Porter, et al., using thrombin to control bleeding during neurosurgical procedures, reported an incidence of serum hepatitis in fifteen of forty-eight cases with two deaths.[14] They were able to transmit the virus to volunteers by injecting them with 1,000 units of the suspected thrombin. Of those injected 50 per cent developed hepatitis with jaundice and an additional 20 per cent got hepatitis without jaundice.

The method of preparation and preservation of human fibrinogen protects rather than destroys any hepatitis B virus which may be present in the original blood pool. Although ultraviolet irradiation may have some viricidal activity, it cannot be relied on to sterilize the fraction. Cutter Laboratories, Berkeley, California, which markets an ultraviolet irradiated product, Parenogen, makes this fact clear in its literature relating to it. Ultraviolet irradiation was not successful in the treatment of plasma and should not be expected to do more for fibrinogen.[12]

The incidence of serum hepatitis following the infusion of human fibrinogen has never been accurately determined. The principal reason, of course, is that fibrinogen has come into general use as a therapeutic tool only recently. Furthermore, the number of cases of hypofibrinogenemia in a given area is small. For example, in a statistical study made in Nassau County, N. Y., in 1953 and 1954 by Maisel and Cartnick, only ten cases of hypofibrinogenemia were reported among 31,488 obstetric patients. One of the cases died.[15]

The American Medical Association Council on Pharmacy and Chemistry warns that the risk of serum hepatitis is probably greater after use of fibrinogen than that from whole blood and Janeway gives an incidence of 10 per cent in forty-three cases given Cohn's Fraction I.[16]

In a survey of eight St. Louis area hospitals seventeen cases given fibrinogen and surviving three months or more were collected. These cases are summarized in table I. Fifteen were associated with obstetric abnormalities and two with thoracic surgical procedures. Of the fifteen obstetric cases seven had abruptio placenta, by far the principal cause of acquired hypofibrinogenemia.

Serum hepatitis occurred in six of the seventeen cases (35 per cent). The development of hepatitis in a given case did not relate to the amount of fibrinogen or of whole blood administered. In the six hepatitis cases the range of fibrinogen dosage was 1 to 10 grams with an average of 3.5 grams per patient. Whole blood administration ranged from 1 to 5 units with an average of 3.0 units per patient. This is compared to ranges in the eleven remaining cases of 1 to 10 grams of fibrinogen (average 3.9 grams) and 1 to 20 units of whole blood (average 7 units).

CASE REPORT

G. F., a 23 year old housewife, was admitted to the Evangelical Deaconess Hospital, St. Louis, on April 2, 1956, complaining of tiredness, malaise, nausea and dark urine of one week's duration, and jaundice, mild fever and a bad taste in her mouth of three days' duration. She had been referred as a probable case of homologous serum hepatitis by her obstetrician, Dr. Lee A. Hall.

The patient saw Dr. Hall in the summer of 1955 for care during her first pregnancy. Her last previous normal menstrual period had been on May 3, 1955. She was Rh negative but had received no blood or blood products in the past. Her pregnancy was uneventful until November 25, 1955 (during the nineteenth week) when due to absence of fetal movements and of the fetal heart tones, it was presumed the fetus had died. The following laboratory findings were obtained during the patient's subsequent outpatient course before delivery:

Date	*Fibrinogen*	*Bleed. time*	*Clot. time*	*Proth. time*	*Clot Beg.*	*Retraction Complete*
12/10/55	490 mg.%	1′ 39″	11′ 24″	44%	2 h.	4 h.
12/12/55	310 mg.%	1′ 26″	15′	50%		
12/16/55	180 mg.%	1′ 6″	13′ 50″	82%	1 h.	18 h.
1/4/56	75 mg.%					

The patient was admitted to St. Mary's Hospital and on January 7, 1956, six weeks after presumed death of the fetus, was delivered of a macerated fetus. During and following delivery she received 2 grams of Parenogen (fibrinogen, Cutter) and 2 units of whole bank blood.

She had no further early postpartum complications, was discharged from the hospital on the seventh day, did well until a week before her admission to the second hospital. The onset of her malaise, nausea, fever and subsequent jaundice occurred seventy-six days after the treatment for hypofibrinogenemia.

Except for marked jaundice and slight right upper quadrant tenderness her physical examination was normal. The liver was not enlarged.

Her laboratory tests were as follow: Hematocrit 39, hemoglobin 11.9 gms., white blood count 5,450, differential normal. Bleeding time 1 minute. Clotting time 3 hours, 15 minutes. Urine was negative except for four plus bile and urobilinogen positive at 1 to 10 dilution. Total serum protein 6.6, albumin 4.4, globulin 2.2, alkaline phosphatase 7.4. Icterus index 80. Prothrombin time 81 per cent of normal. CC flocculation four plus in twenty-four hours. VDRL nonreactive.

She was treated supportively at bed rest with high vitamin, carbohydrate and protein intake for ten days in the hospital and for more than 100 days at home. Throughout most of this course she was essentially asymptomatic except for the persistence of jaundice. On June 18, 1956 her CC flocculation, alkaline phosphatase and serum protein determination were normal. She had a 9.5 per cent BSP retention after forty-five minutes. Her bilirubin was 1.2 mg. per cent in 1 minute and 4.0 mg. per cent total. On July 27, 1956, she had 5.4 per cent BSP retention in forty-five minutes and bilirubin levels of 0.25 mg. per cent in 1 minute and 1.05 mg. per cent total. Her skin was no longer jaundiced.

DISCUSSION

The use of human fibrinogen in the treatment of hypofibrinogenemia states can well be considered one of the most important specifics in modern therapeutics. Certainly to the busy obstetrician in whose large practice an occasional case appears, the availability of this blood fraction is an absolute necessity. That it carries the potential to cause serum hepatitis should in no way deter him from its liberal use in indicated cases. The risk of death from the hypofibrinogenemia and resulting hemorrhagic diathesis far exceeds any danger from hepatitis. It is essential, however, if the number of hepatitis cases is to be kept low that certain criteria for the use of human fibrinogen be observed.

In cases 4 and 7 of table I blood fibrinogen levels were normal. The operators in these instances were persuaded to give fibrinogen on the basis of excessive bleeding and the results of Fibrindex tests which were reported as "subnormal." From the discrepancy between the Fibrindex results and the quantitative fibrinogen levels, it would appear that the Fibrindex test cannot always be relied on as a rapid method for making this determination.

The Fibrindex test material, a product of the Ortho Pharmaceutical Corp., Raritan, N. J., consists of vials containing 50 units of dried human thrombin. When properly rectified each drop of solution contains 10 units of thrombin. One such drop is mixed with a drop of the oxalated plasma from the patient and another with a drop of normal plasma. When fibrinogen levels are normal clotting begins in five seconds and is complete and

TABLE 1
REVIEW OF SEVENTEEN PATIENTS

No.	*Pt.*	*Age*	*Hospital*	*Doctors*	*Diagnosis*	*Tests for Fibrinogen*	*Gms. Fib.*	*Units Whole Blood*	JAUNDICE	
									Days from treatment to onset	*Approx. Days of Illness*
1	MF	28	Ev. Deac. 5/10/54 to 5/23/54	L. Kirtz	Cesarean for abruptio placenta at 25 wks. Rh incompatible. G iv, P iii.		2	4	93	35 recovery
2	DO	30	Ev. Deac. 1/31/55 to 2/12/55	G. H. Zillgitt H. Wiegand	Rh incompatible. Fetal death at 26 wks., delivery 6½ wks. later. G ii, P i.	Fibrindex—"Subnormal" Quant. Fib.—48 mg.%	2	4	No jaundice	
3	BS	35	Ev. Deac. 3/18/55 to 6/12/55	L. L. Robertson	Placenta praevia. Premature delivery at 24 wks. G iv, P ii.	Fibrindex—"Subnormal"	1	4	No jaundice	
4	EL	24	Ev. Deac. 4/13/55 to 4/28/55	L. Kirtz R. W. Martin	Cesarean for placenta praevia at 32 wks. G i, P i.	Fibrindex—"Subnormal" Quant. Fib.—380 mg.%	1	1	No jaundice	
5	VB	39	Ev. Deac. 7/23/55 to 8/3/55	L. Kirtz V. Reece	Cesarean for placenta praevia at 36 wks. G vi, P v.	Fibrindex—"Subnormal"	1	1	65	21 recovery
6	FY	44	Ev. Deac. 12/7/55 to 12/24/55	L. Kirtz H. Waters	Cesarean for abruptio placenta at 36 wks. G viii, P vi.	Fibrindex—"Subnormal" Quant. Fib.—114 mg.%	3	8	No jaundice	
7	BB	24	Ev. Deac. 3/2/56 to 3/10/56	A. Klein B. Klein	Cesarean for placenta praevia at 34 wks. G iv, P iii.	Fibrindex—"Subnormal" Quant. Fib.—250 mg.%	2	2	No jaundice	
8	TS	24	St. L. Mat. 9/27/54 to 10/6/54	W. Berman	Rh incompatible. Fetal death at 29 wks. Delivery 7 wks. later. G iii, P ii.	Fibrindex—"Flimsy clot 30 min."	3	10	No jaundice	
9	RW	36	St. L. Mat. 3/2/55 to 3/14/55	House case	Pre-eclampsia. Abruptio placentae at 28 wks. G vii, P vi.	Fibrindex—"Lack of fibrinogen" Quant. Fib.—85 mg.%	4	5	60-70	60 recovery
10	JC	29	St. L. Mat. 9/27/56 to 10/3/56	House case	Toxemia. Abruptio placenta at 34 wks. G ii, P o.	Fibrindex—"No clot 5 min." Quant. Fib.—30 mg.%	4	6	No jaundice	
11	BB	23	St. Jos. 8/10/55 to 8/19/55	F. A. Morrison H. Allen	Cesarean for abruptio placenta at 33 wks. G ii, P o.	Fibrindex—"No clot 30 min."	5	5	No jaundice	
12	GF	23	St. Mary's 1/7/56 to 1/14/56	L. A. Hall J. S. Skinner	Fetal death at 19 wks. Delivery 6 wks. later. G i, P o.	Quant. Fib. 1/4/56—75 mg.%	2	2	76	119 recovery
13	MMc	34	H.G.P. 3/25/56 to 4/3/56	S. Monat	Abruptio placenta at 27 wks. G iv, P ii.	Fibrindex—"No clot in 30 min."	2	2	84	30 recovery
14	IG	23	St. Luke's 5/29/56 to 6/11/56	R. Streeter	Abruptio placenta at 38 wks. G iii, P i.	Fibrindex—"No clot in 30 min." Quant. Fib.—15 mg.%	3	4	No jaundice	
15	WD	38	St. Luke's 12/10/56 to 12/22/56	O. Krebs J. Shapleigh	Rh incompatible. Fetal death at about 29 wks. Hysterotomy 3½ wks. later. G v, P iv.	Bovine Thrombin Clotting test—No clot Quant. Fib.—70 mg.%	10	4	43	(Pt. still ill)
16	LS	28	Barnes 10/15/54 to 11/4/54	T. Burford J. Owen	Ligation patent Ductus Arteriosus	Fibrindex—"Poor clot that rapidly lysed."	10	10	No jaundice	
17	LS	44	Koch 5/14/54 to 2/7/56	House case (Dr. Murphy)	Pneumonectomy for chronic Pul. Tbc.	No clot—2 hours	9	20	No jaundice	

Abbreviations: Ev. Deac., Evangelical Deaconess Hospital, St. Louis, Mo.; St. L. Mat., St. Louis Maternity Hospital, St. Louis, Mo.; St. Jos., St. Joseph's Hospital, Alton, Ill.; St. Mary's, St. Mary's Hospital, Clayton, Mo.; H.G.P., Homer G. Phillip's Hospital, St. Louis, Mo.; St. Luke's, St. Luke's Hospital, St. Louis, Mo.; Barnes, Barnes Hospital, St. Louis, Mo.; Koch Hospital, Koch, Mo.

firm in thirty to sixty seconds. If the patient's plasma fails to show a firm clot in sixty seconds the existence of subnormal fibrinogen levels is to be presumed.

The failure of postpartum uterine blood to clot, according to Ratnoff, Pritchard and Colopy,[17] cannot be accepted as evidence for hypofibrinogenemia since this is usual, especially immediately after delivery. It is fair to say also that hypofibrinogenemia is probably one of the least common causes for untoward operative site hemorrhages and that local bleeding cannot of itself be considered sufficient reason to employ fibrinogen.

Since it is usually essential to make decisions rapidly in instances of this sort, the hour or more to perform a quantitative fibrinogen test makes this test unsatisfactory. Ratnoff, et al.,[17] have described a practical and efficient approach to this problem. Their method provides rapid and accurate criteria for determining the need in a given case for fibrinogen treatment.

In brief, these workers provide their operating suites with sets of test tubes ready for immediate use. Each set consists of three clean test tubes. Into one tube, which is scored at 1 cc., is placed 0.1 cc. (100 N.I.H. units) of topical bovine thrombin. This tube is kept in the deep freeze unit usually available in most operating areas. A second tube contains oxalate crystals and a third tube is empty. When testing a given sample of blood, 1 cc. is placed into the thrombin tube for observation of immediate clot formation, 5 cc. in the oxalate tube for quantitative fibrinogen determination, and 3 cc. in the empty tube for observation of clotting time and clot characteristics.

If hypofibrinogenemia is present no clot may form in either tube 1 or 3, or it may be quite small and flabby. In the presence of adequate fibrinogen levels a firm clot will form in a few seconds in tube 1 and in average time in tube 3. These authors stress the important point of the value to the physician of personal experience in the appearance of normal or abnormal clots.

Harrington[18] utilizes the patient's plasma rather than whole blood with the thrombin solution. Whatever method is used, he too urges familiarity with clot formation and suggests that the lack of this knowledge on the part of the observer may account for the discrepancies in the Fibrindex test results.

It is worth mentioning also that once the condition which precipitates the hypofibrinogenemia has been corrected, the liver appears capable of maintaining adequate levels of fibrinogen. If this can be accomplished prior to a loss of circulating fibrinogen below critical levels, the use of the fraction is not indicated and the risk of hepatitis avoided.

SUMMARY

A case of serum hepatitis occurring in a patient treated for acquired hypofibrinogenemia with human fibrinogen is reported. A total report of seventeen cases treated with this fraction was collected from eight St. Louis area hospitals and are summarized. Six of the seventeen developed serum hepatitis (35 per cent).

The dose of fibrinogen or of whole blood administered a given case was unrelated to the individual's chances for hepatitis.

Although the role of whole blood in influencing the incidence of serum hepatitis in this series cannot be evaluated, a rate of 35 per cent is far in excess of any reported following whole blood alone. The fibrinogen fraction is therefore considered principally responsible.

Because of the chances of transmitting hepatitis B virus to susceptible persons, care must be exercised to administer human fibrinogen only in those cases in which its need is clearly established.

35 N. Central

BIBLIOGRAPHY

1. (a) Schneider, C. L.: Thromboplastin Complications of Pregnancy, Bull. Margaret Hague Mat. Hosp. **4**:2-15 (January) 1951; (b) Editorial: Acquired Afibrinogenemia in Pregnancy, J.A.M.A. **154**:60-61 (January 2) 1954; (c) Reid, D. E.; Roby, C. C., and Weiner, A. E.: Coagulation Defects in Severe Intrapartum and Postpartum Hemorrhage, J.A.M.A. **161**:1244-47 (July 28) 1956.

2. Moloney, W. C.; Egan, W. J., and Gorman, A. J.: Acquired Afibrinogenemia in Pregnancy, New England J. Med. **240**:596-8 (April 14) 1949.

3. (a) Chessin, H., and Greenwald, J. C.: Afibrinogenemia in Pregnancy: Diagnosis and Treatment, J. Mt. Sinai Hosp. **20**:263-66 (Nov.-Dec.) 1953; (b) Jackson, D. P.; Hartman, R. C., and Busby, T.: Fibrinogenopenia Complicating Pregnancy, Obst. & Gynec. **5**:223-47 (March) 1955; (c) Leary, J. J. Jr.: Acute Afibrinogenemia Following Elective Caesarian Section, Obst. & Gynec. **7**:150-2 (February) 1956.

4. (a) McKay, D. G.; Mansell, H., and Hertig, A. T.: Cancer **6**:862-9 (September) 1953; (b) Penn, S. R., and Walker, J. H.: Defective Blood Coagulation Following Pulmonary Surgery, New England J. Med. **250**:764-5 (May 6) 1954; (c) Sweeney, W. J.: A Case of Hypofibrinogenemia Following Vaginal Surgery With the Subsequent Development of Homologous Serum Jaundice, Am. J. Obst. & Gynec. **72**:446-8 (August) 1956.

5. Phillips, L. L.: Rowley, P. T., and Habif, D. V.: Hypofibrinogenemia in Surgical Patients, Surg., Gynec. & Obst. **103**:443-54 (October) 1956.

6. Kinch, Robert A. H.: Hypofibrinogenemia in Pregnancy and the Puerperium Am. J. Obst. & Gynec. **71**:746-53 (April) 1956.

7. Page, E. W.; Fulton, L. D., and Glendening, M. B.: The Cause of the Blood Coagulation Defect Following Abruptio Placenta, Am. J. Obst. & Gynec. **61**:116-22 (May) 1951.

8. Crosbie, A.; Scarborough, H., and Thompson, J. C.: Studies on Stored Blood: Observations on the Coagulation Mechanism in Stored Blood, Edin. M. J. **48**:41-51 (January) 1941.

9. Shank, R. E.: Viral Hepatitis, Disease-a-month Series. 35 pp. Chicago: The Yearbook Publishers, Inc., September 1955.

10. Rightsel, W. A.; Keltsch, R. A.; Tekushan, F. M., and McLean, I. W., Jr.: Tissue Culture Cultivation of Cytopathogenic Agents From Patients With Clinical Hepatitis, Science **124**:226-8 (August) 1956.

11. Allen, J. G.: Editorial: Problems of Homologous Serum Jaundice After Plasma Transfusions, Arch. Surg. **64**:1-4 (January) 1952.

12. Vogel, P.: Current Problems in Blood Transfusions, Bull. N. Y. Acad. Med. **30**:658 (September) 1954.

13. Expert Committee on Hepatitis, First Report, W. H. O. Tech. Rep. Series 62, Geneva, 1953.

14. Porter, J. E.; Shapiro, M.; Maltby, G. L.; Drake, M. E.; Barondess, J. A.: Bashe, W. J., Jr.; Stokes, J., Jr.; Oliphant, J. W.; Diefenbach, W. C. L.; Murray, R., and Leone, N. C.: Human Thrombin as Vehicle of Infection in Homologous Serum Hepatitis, J.A.M.A. **153**:17-19 (September 5) 1953.

15. Maisel, F. J., and Cartnick, E. N.: Afibrinogenemia: Incidence in a Geographic Area. Statistical Survey for 1953 and 1954, Obst. & Gynec. **7**:341-3 (March) 1956.

16. Council on Pharmacy and Chemistry: Fibrinogen (Human), J.A.M.A. **159**:778-9 (October 22) 1955; (b) Janeway, Charles A.: Clinical Use of Blood Derivatives, J.A.M.A. **138**:859-65 (November 20) 1948.

17. Ratnoff, O. D.; Pritchard, J. A., and Colopy, J. E.: Hemorrhagic States During Pregnancy, New England J. Med. **253**:63-9, 97-102 (July 14 and July 21) 1955.

18. Harrington, W. J.: Personal communication.

Combined Treatment of Premenstrual Tension

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PREMENSTRUAL TENSION is a common minor endocrinologic disorder which often is accepted as an inevitable feature of womanhood. It has been estimated that this syndrome causes an annual loss of $15,600 per 100 female employees.[5] In 1931 Frank[6] first recognized and described premenstrual tension as a distinct gynecologic condition. For a week to ten days preceding menstruation approximately 50 per cent of women experience varying degrees of distress which, when accentuated, constitutes the syndrome of premenstrual tension. Eichner[5] reported that only 6.5 per cent of eighty-seven nurses with symptoms sought relief from these symptoms but, since considerable reference to this entity has appeared in the lay press recently, a higher percentage of women may be seeking relief.

Essentially, the syndrome is a water toxemia with the intensity of symptoms varying with the amount of excess water stored. Bickers[1] found an average weight gain of 6.8 pounds in women with severe symptoms. In a report of 288 cases, the age varied from 12 to 42 with the average age 30, and in the same report the symptoms in order of frequency were mastalgia, headache, pelvic pain, nausea and emotional symptoms.[14] Green and Dalton,[8] however, found mastalgia the least frequent complaint. The dramatic relief from physical and mental tension that occurs after the onset of the menstrual flow is the most striking feature of this syndrome.

Cooke[3] reported that in Paris 84 per cent of all crimes of violence committed by women occurred in the premenstrual phase of their cycles. Morton confirmed these findings in another group of women prisoners when he found that only 2 per cent of violent crimes were committed during the post-menstrual phase. Furthermore, treatment of premenstrual tension has abated recurrent psychotic episodes.[16]

Katherina Dalton[4] found that premenstrual tension was almost four times more common in women who had had toxemias of pregnancy as in mothers who had had normal pregnancies.

ETIOLOGY

Most investigators have found evidence of hyperestrogenism on vaginal smears and a persistent progesterone deficiency.[9, 11, 13] The unantagonized estrogenic activity may cause sodium ion retention and increased extracellular fluid. Ufer[15] demonstrated accentuation of symptoms with estrogens and relief of symptoms with progesterone. On the other hand, progesterone has been felt responsible for premenstrual tension by a few investigators, possibly on the basis of an endogenous allergy to progesterone.[14] Two groups have found a hypoglycemic type of curve on the sugar tolerance test during the premenstrual phase in women exhibiting symptoms.[2, 13] This might explain some psychotic manifestations as well as weakness and fatigue; however, although hormone treatment relieved symptoms, the hypoglycemic curve improved only slightly.

TREATMENT

Treatment has been based upon correction of hormonal imbalance and by mobilization of water and sodium with diuretics and salt restriction. Progesterone and ethisterone have been used as substitutive therapy and testosterone in order to neutralize unantagonized estrogen. In addition, the androgens have progestational activity as demonstrated in monkeys[10] and post-menopausal women.[12]

MATERIAL

Seventy-five patients were seen by the author or by other members of the Thompson-Brumm-Knepper Clinic from 1954-1956. These represented eighty-one therapeutic cases since these patients who failed with one method of treatment would have a different regimen instituted. Many mild cases were excluded from this study, since the diagnosis was made and recorded on the basis of the patients' primary complaints. Twenty-five of the eighty-one cases were from the clinic services of a Charity Hospital. The age range of this study was between 16 and 47 with the average age 32 years.

Method of premenstrual treatment	*Relief experienced*		
	NONE	PARTIAL	COMPLETE
Tranquilizers with or without amphetamine	3	3	0
Testosterone (70-120 mgms.) or progesterone (70-100 mgms.)	1	4	6
Salt restriction plus diuretic or diuretic only	2	8	2
Diuretic plus testosterone	0	5	15
Diuretic plus progesterone	0	3	29

The diuretic most often used was sodium acetazoeamide (Diamox) 250 mgs. daily for ten to fourteen days before menses, or ammonium chloride 1.0 gm. three times a day for from ten to fourteen days premenstrually. Buccal testosterone was the most frequently prescribed form of androgen, 10 mg. daily, and ethisterone (Pranone), 20

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Hepatic Coma

A Review of the Recent Literature

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THE TERM "hepatic coma" refers to patients with disease of the liver or portal circulation manifesting varying degrees of encephalopathy. The patient does not necessarily have to be comatose, but he must have liver disease and some associated central nervous system disturbance.

Ever since the time of Hippocrates it has been observed that patients with disease of the liver may lapse into deep sleep and die. Sometimes they exhibit peculiar nervous and mental reactions before lapsing into this state of "hepatic coma." Early, it was thought that there was some relationship between the liver and the brain.[1]

INCIDENCE AND PROGNOSIS

In some studies, coma has been encountered in nearly 10 per cent of all cases of portal cirrhosis.[2] Rarely is it seen in fulminating viral hepatitis. The survival rate has been around 30 per cent in cirrhotic patients, the percentage being much lower in cases in which acute liver necrosis was a factor. Next to gastrointestinal hemorrhage, coma is the most important cause of death in cirrhosis.

CLINICAL SYMPTOMS AND SIGNS—THE NEUROLOGIC DISORDER

The diagnosis of hepatic coma is dependent on the presence of neurologic sequelae of severe liver insufficiency.[2] It might be well to emphasize here that there exists in the liver a large factor of safety in disease; indeed, experimental studies indicate that only 20 per cent of the liver tissue suffices for maintenance of life.[3] From this, therefore, one may assume that encephalopathies result only from liver insufficiency of a marked degree.

The time of onset of the symptoms is variable, but, interestingly, they seem to commence most often in the evening. They may abate at any time.[4] The neurologic disorder may be manifested by a host of symptoms and signs. The patient may have a clouding of consciousness as shown by extreme apathy and confusion and a gradual or abrupt lapse into coma. At the onset, facial expression may become vacant or be varied by grimacing or blinking. Salivation is increased and speech is

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Premenstrual Tension—Continued

mg. daily, or buccal progesterone, 10 mg. daily, the usual progestin employed. Again, these were taken ten to fourteen days before the onset of menstruation.

Hormone alone gave complete relief in six of eleven patients, whereas the combination of hormone and diuretic gave complete relief of symptoms in forty-four out of fifty-two patients (85 per cent).

SUMMARY

Premenstrual tension is a common gynecologic syndrome manifested by a variety of congestive symptoms caused by water intoxication and possibly aggravated by hypoglycemia. The disorder has been demonstrated by many investigators to be associated with deficient progesterone elaboration which allows unantagonized estrogenic activity. The rationale of therapy is based upon correction of the hormonal imbalance and mobilization of sodium and water from the affected tissues. Treatment with a combination of an oral diuretic plus testosterone or progesterone proved to be completely effective in forty-four of fifty-two cases and afforded partial relief in the remainder of patients.

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BIBLIOGRAPHY

1. Bickers, W.: Premenstrual Tension and Its Relationship to Water Metabolism, Am. J. Obst. & Gynec. **64**:587, 1952.
2. Billig, H. E., and Spaulding, C. A.: Hyperinsulinism of Menses, Indust. Med. **16**:335, 1947.
3. Cooke, W. R.: The Differential Psychology of the American Women, Am. J. Obst. & Gynec. **49**:457, 1945.
4. Dalton, K.: Similarity of Symptomatology of Premenstrual Syndrome and Toxemia of Pregnancy and Their Response to Progesterone, Brit. M. J. **2**:1071 (November) 1954.
5. Eichner, E.: Premenstrual Tension Syndrome. Exhibit at Am. Col. of Obst. & Gynec (Chicago) Nov. 7, 8, 9, 1956.
6. Frank, R. T.: The Hormonal Causes of Premenstrual Tension, Arch. Neurol & Psych. **26**:1053, 1931.
7. Freed, S. C.: The Treatment of Premenstrual Distress With Special Consideration of the Androgens, J.A.M.A. **127**: 377, 1945.
8. Green, R., and Dalton, K.: The Premenstrual Syndrome, Brit. M. J. **1**:1007 (May) 1953.
9. Greenhill, J. P., and Freed, S. C.: The Mechanism and Treatment of Premenstrual Distress With Ammonium Chloride, Endocrinol. **26**:529, 1940.
10. Hisaw, F. L.: Androgens and Experimental Menstruation in the Monkey (macaca mulatta), Endocrinol. **33**:39, 1943.
11. Israel, S. L.: Premenstrual Tension, J.A.M.A. **110**: 1721, 1938.
12. Masters, W. H.: Personal Communication.
13. Morton, J. H.: Premenstrual Tension, Am. J. Obst. & Gynec. **60**:343, 1950.
14. Simmons, R. J.: Premenstrual Tension: Review of 288 Cases, Obst. & Gynec. **8**:99, 1956.
15. Ufer, J.: Zur Wirkung der Sexualhormone auf praemenstrelle Beschwerden, Geburtsh. u Frauenh. **14**:723, 1954.
16. Williams, E. Y., and Weekes, L. R.: Premenstrual Tension Associated With Psychotic Episodes, J. Nerv. & Ment. Dis. **116**:321, 1952.

slow, slurred and increasingly restricted to the repetition of a few irrational phrases. Comprehension becomes difficult, and it is not easy for the patient to obey simple commands. A few patients lose social restraint and show a peculiar tendency to evacuate the bladder or bowels in inappropriate places. Occasionally euphoria, in conspicuous contrast to the gravity of the patient's condition, develops.[5]

Motor disorders are seen in almost every patient. The most characteristic one is the so-called "flapping" tremor, best elicited by having the patient hold arms and hands outstretched with the fingers spread apart. If the sign is present, there will appear, at regular intervals of from one to seven seconds, a series of movements of the fingers at the metacarpo-phalangeal joints, and flexion-extension movements of the wrist which has a "flapping" quality. In severe cases, the elbow and shoulders may be involved in the movement.[2] Sometimes a protruding tongue, a retracted mouth, and tightly closed eyelids may be evident. The gait may be ataxic. Movements are usually absent at rest and are precipitated by voluntary movements. Sometimes the deep tendon reflexes are hyperactive. As coma deepens, flaccidity of muscles develops, deep tendon reflexes diminish and the sign of Babinski may appear.[4] Ankle clonus may develop. The pupils are dilated and respond sluggishly to light. Ophthalmoplegias may occur. Nuchal rigidity is occasionally noted but, when marked, a meningeal infection should be suspected. Yawning and hiccoughing also occur. These central nervous system changes are almost invariably accompanied by a complete rejection of food and, at times, vomiting.[6] Fetor hepaticus may be marked.[5]

There are also electroencephalographic changes characterized by high voltage waves in the delta range of one and a half to three seconds' duration. They are usually seen first in the frontal region and later spread laterally and posteriorly.[2]

In summary, then, it can be stated that there is in the fully developed clinical picture a diagnostic triad of neurologic manifestations, namely: (1) change in mental status, (2) typical tremor, and (3) specific electroencephalographic changes.

PATHOGENESIS

A. *Historical.*—The pathogenesis of hepatic coma never has been elucidated clearly, but the role of disordered ammonia metabolism has been increasingly under suspicion. Burchi may be credited with the first recorded instance of suspected ammonia intoxication in man with cirrhosis of the liver, in 1927.[7] The first major work on the subject is that of Van Caulaert, who published a series of papers on the significance of disordered ammonia metabolism in liver disease. He was able to induce central nervous system symptoms in patients with cirrhosis by the administration of ammonium chloride (quoted from 9). In 1936, Kirk demonstrated that urea synthesis in most cirrhotic patients was entirely normal and that ammonia intoxication must be due to the development of collateral circulation between the portal and systemic systems, thereby making it possible for ammonia absorbed from the gut to be shunted into the systemic circulation.[8] Gausted discussed the mechanism of coma in four patients with severe cirrhosis, all of whom recovered. He noted that in each instance the onset was precipitated by a severe hemorrhage from esophageal varices. Four other patients with severe cirrhosis were given urea by mouth and this resulted in the development of mental changes. Gausted concluded that the symptoms were caused by nitrogenous substances formed from urea by bacterial action in the bowel.[9] Other investigators since then have found coma to be precipitated by a variety of nitrogenous substances including ammonium chloride, ammonium potassium exchange resins, urea, and a high protein diet, especially the latter being found to precipitate coma in patients with portacaval shunts. In one case of coma the battery of liver function tests were normal and the only apparent cause was a portacaval shunt which had been performed to restore the continuity of the portal circulation, blocked by a carcinoma of the pancreas.[10]

B. *Biochemical Observations.* 1. *Ammonia metabolism.*—There is universal agreement among all investigators of hepatic coma that the blood ammonia level is raised, but there is no agreement as to the significance of this finding.[10]

The approximate ammonia levels in blood of normal fasting subjects, as reported by McDermott, et al.[11] are:

Peripheral venous blood, 50 mcg. per cent
Portal vein, 250 mcg. per cent
Hepatic vein, 80 mcg. per cent
Renal vein, 100 mcg. per cent

These values were determined using the microdiffusion technic of Conway.[12]

Ammonia rises to high levels in the portal vein after a protein meal. The level in the renal vein is higher than that in the renal artery. Therefore, it would appear that the kidney does not clear ammonia from the peripheral blood but rather contributes to it. Most of the ammonia in the blood stream is derived from bacterial action on protein in the gut.[10] The liver is the chief source of removal of ammonia by the formation of urea.[2] (When neurologic signs appear, the peripheral venous blood usually shows a concentration of 200 mcg. per cent or greater.[10] It should be emphasized that there is no exact correlation between the neurologic signs and the blood ammonia level.) C. S. Davidson[13] thinks that the method for measuring blood ammonia may not be specific so that other substances also may be detected that are toxic. It may be that the extracellular ammonia concentrations measured do not indicate the quantity of intracellular ammonia, which is definitely known to be quite toxic. Finally, the neuroligic changes may be related to some derivative of ammonia, for example, glutamine.

The fact remains that when blood is shunted around the liver, whether through collateral circulation occurring in cirrhosis or by elective surgery, higher levels of ammonia are carried directly to the brain.

How does ammonia affect the brain? It may be due to a secondary glutamic acid deficit. Glutamic acid is necessary for cerebral acetylcholine synthesis and cation exchange. It is the only amino acid oxidized by the brain. Krebs found in 1935 that brain slices could synthesize glutamine from glutamic acid and ammonia in the presence of glucose.[14] Glutamic acid is deaminated to a-ketoglutaric acid and thence enters the Krebs cycle. Some authorities report that therapeutic regimes using glutamic acid have failed to influence the course of coma, and it may be that excessive blood ammonia actually interferes with the function of the Krebs cycle by combining with glutamic acid to form glutamine, thereby blocking the formation of a-ketoglutaric acid.[2] If this is true, the Krebs cycle would be blocked and there would be an accumulation of pyruvate, each molecule of which, when oxidized, provides fifteen high energy phosphate bonds. It follows that cerebral phosphorylation of glucose would probably be impaired. This is partly confirmed by demonstration of an adequate delivery of glucose to the brain occurring with a depressed cerebral metabolic rate. This would suggest an impairment in cerebral carbohydrate metabolism and a diminished oxygen utilization.[2]

2. *Other Chemical Changes.*—Lactic acid, along with pyruvate, is usually increased in the blood stream in hepatic coma. This may be due to impaired phosphorylation of thiamine which is necessary for the complete utilization of pyruvic acid, and the inability to reconvert lactic acid into glycogen in the fibrotic liver.[2]

Disturbances in electrolytes are not important *per se*. Emesis, diarrhea, anorexia or a negative nitrogen balance predisposes to excessive potassium loss. This may be aggravated by large amounts of parenteral fluids with resultant hemodilution. Glycogen depletion will mobilize additional potassium for renal excretion while large amounts of glucose intravenously with attendant glycogen deposition will further depress the potassium levels. These patients may tend to retain sodium and water, or, on the other hand, fluid losses by emesis, diaphoresis, or paracentesis coupled with restriction in intake can lead to profound sodium depletion.[2]

The protein in the cerebrospinal fluid is increased as is the serum bilirubin at times. Chromatographic studies have demonstrated marked increase in the plasma and urine of amino acids. Cystine and methionine are increased in the plasma, and cystine is almost always increased in the urine.[1] It has also been shown that glutamine is increased in the plasma, urine and cerebrospinal fluid.[15] One test that appears to be uniformly altered among comatose cirrhotic patients is the progressive decline in cholesterol esters in the blood.[2]

C. *Histologic Changes.*—In 1949, neuropathologic changes subsequent to severe liver disease were first reported. The most striking change was a hyperplasia of astrocytes in the cerebral cortex and lenticular nucleus with no alteration of parenchymal structures. The significance of this is not clear and it is likely that the diffuse glial change would not in itself produce neurologic symptoms.[1, 10]

DIFFERENTIAL DIAGNOSIS

In patients with severe liver diseases, a number of neurologic disturbances may be met, not all of which are attributable to hepatic coma. Among these are the psychoses associated with chronic alcoholism and nicotinic acid deficiency, electrolyte disturbances, septicemia, increased response to narcotics and subdural hematoma.

PREVENTION

Hepatic coma is often preventable. An alert clinician should recognize the dynamic factors which may precipitate coma in the patient with severe liver disease. A vigilant program of general management should be followed. Ammonium salts should be avoided in therapy. Caution should be used in administering sedatives and hypnotics. Paracentesis should be done only when absolutely necessary. Since most of these patients will be on a salt restriction diet, the electrolyte status should be checked periodically. Prompt therapy of infections with indicated drugs is definitely necessary. In these patients hemorrhage from esophageal varices occurs not uncommonly. This complication can often be controlled by the Sengstaken-Blakemore procedure. Alcoholic beverages are absolutely contraindicated. Surgical procedures should be delayed or avoided whenever possible.[2, 6, 10] Diamox should never be prescribed since it has been shown that it may produce impending coma in individuals with severe hepatic disease.[16]

TREATMENT

For the most part, the therapy of hepatic coma is symptomatic. Large amounts of glucose intravenously with liberal amounts of thiamine, ascorbic acid and nicotinic acid should be given. Vitamin K should be administered when necessary. Infusions of whole blood should be given in the presence of blood loss. Oxygen may be necessary. Antibiotics, given to suppress the bacterial flora of the intestine, and thus reduce the ammonia producing potential of the gut, seems to be a valuable therapeutic adjunct. Chlortetracycline has been used frequently in this respect. Since the liver may remove up to 90 per cent of circulating bacteria, this is also a valuable aid in prophylaxis against infection. ACTH and cortisone are probably detrimental; some authors have reported increased ascites, portal vein thrombosis and esophageal hemorrhages following their administration.[6, 10, 17]

Dietary measures may sometimes play an important role. Since protein intake is implicated in the genesis of hepatic coma, reduction in, or complete elimination of, protein from the diet may improve the mental status. A favorable outlook is not to be expected if the hepatic condition appears to be progressing. In a situation such as this, when the physician must decide between the advice of those who favor a high-protein diet and the advice of those who fear large amounts of protein because of the propensity to induce coma, it is perhaps best to follow a conservative program, and every effort should be made to insure that the patient consumes a normal, well-balanced diet, preferably one to his liking without restricting or augmenting the protein content.[18]

Considerable attention has been paid to glutamic acid as a specific therapeutic agent for this disorder. McDermott,[19] in a series of twenty-eight cases of hepatic coma, divided them into three groups:

1. Acute spontaneous. Those patients had advanced liver disease with central nervous system symptoms without any precipitating factors such as the ingestion of protein, ammonium chloride or urea diuretics, and without bleeding from esophageal varices or elsewhere.
2. Acute exogenous. They had reasonably well compensated livers who had acute episodes precipitated by the named factors, the commonest of which was a large amount of nitrogenous substance in the gastrointestinal tract.
3. Chronic. Liver disease patients who remained in a chronic confused state without any rapid progression to coma and without any spontaneous remissions or exacerbations.

He treated all patients with l-glutamic acid in varying dosages, either orally or as sodium glutamate, usually 25 gms. in glucose by intravenous drip.

Six patients of the acute spontaneous class were treated. In four there was a fall in the blood ammonia, two did not respond, and in none did the ammonia level return to normal. Fourteen were of the acute exogenous variety and thirteen of these showed a fall in the blood ammonia, seven with a return to normal levels and remained at a normal level after treatment was discontinued. Eight patients were classified as chronic, and of these seven showed a decline in the blood level of ammonia with a return to normal levels by two. None, however, remained at a normal level. From this study, McDermott concluded that in the exogenous and chronic groups, ammonia intoxication is the predominant feature and l-glutamic acid is an effective adjunct to treatment, but that there is little effect in the acute spontaneous groups.

Some investigations have not had success with glutamic acid therapy.[20] Others, however, have reported good results with these measures. Recently it has been shown by Najarian and Harper[21] that the amino acid arginine is quite effective in lowering blood ammonia levels when administered intravenously. Interestingly, the decrease in the level of ammonia was always accompanied by a rise in the blood urea nitrogen, suggesting that the effect of arginine on the blood ammonia might be mediated through its role in the urea cycle. Actually, it has been demonstrated that arginine is more potent in its ammonia-lowering action than is glutamic acid.[22]

In conclusion, until more specific agents are developed, it would seem that the best therapeutic regimen would consist of an adequate diet with vitamins, antibiotics, glutamic acid and arginine.

BIBLIOGRAPHY

1. Butt, H. R.: Hepatic Coma: Its Current Status, Arch. Int. Med. **94**:331 (September) 1954.
2. Bressler, V. A.: Hepatic Coma Complicating Portal Cirrhosis, J. M. S. N. J. **52**:466 (September) 1955.
3. Wiggers, C. S.: Physiology in Health and Disease. 5th Edition. Lea and Febiger, Philadelphia, 1949.
4. Sherlock, Shelia; Summerskill, W. H. J.; White, L. P., and Phear, Elizabeth: Portal Systemic Encephalopathy, Lancet **267**:6836 (September) 1954.
5. Himsworth, H. P.: The Liver and Its Diseases, Harvard University Press, 1947.
6. Spellburg, Michael A.: Diseases of the Liver, Grune and Stratton, New York, 1954.
7. Burchi, R. I.: I Sagga della funzionalita epatica e le prova dell 'ammoniemia spontanea e provocata: studio della sufficenza funzionale del fegato, Folia Clin., Chim. et micr. **2**:5-68, 1927.
8. Kirk, E.: Amino Acid and Ammonia Metabolism in Liver Disease, Acta. Med. Scandinav. Supp. **77**:1-147, 1936.
9. Gausted, V.: Transient Hepatargy, Acta Med. Scandinav. **135**:354 (October) 1949.
10. Riddell, A. G.: The Mechanism of Hepatic Coma, Postgraduate M. J. **31**:309 (No. 358).
11. McDermott, W. A.; Adams, R. D., and Riddell, A. G.: Ammonia Metabolism in Man, Ann. Surg. **140**:539 (October) 1954.
12. Conway, E. J., and O'Malley, E.: Microdiffusion Methods. Ammonia and Urea Using Buffered Absorbents, Biochem. J. **36**:655, 1942.
13. Traeger, Henry S.; Gabuzda, G. J.; Ballou, Alice N., and Davidson, C. S.: Blood "Ammonia" Concentration in Liver Disease and Liver Coma, Metabolism **3**:99 (March) 1954.
14. Krebs, H. A.: Metabolism of Amino Acids. iv. Synthesis of Glutamine From Glutamic Acid and Ammonia, and Enzymic Hydrolysis of Glutamine in Animal Tissues, Biochem. J. **29**:1951-1969, 1935.
15. Walshe, J. M.: Observations on the Symptomatology and Pathogenesis of Hepatic Coma, Quart. J. Med. **20**:421, 1951.
16. Webster, L. T., Jr., and Davidson, C. S.: Production of Impending Hepatic Coma by a Carbonic Anhydrase Inhibitor, Diamox. Proc. Soc. Exper. Biol. & Med. **91**:27, 1956.
17. Amatuzio, D. S.; Bollman, J. L.; Gabuzda, G. J.; Giges, B.; Sborov, V. M., and Seligson, D.: The Clinical and Biochemical Features of Hepatic Insufficiency, Gastroenterol. **25**:471, 1953.
18. Davidson, C. S.: Cirrhosis in Alcoholics—Protein Nutrition and Hepatic Coma, J.A.M.A. **160-5**:360 (Feb. 4) 1956.
19. McDermott, W. V.; Wareham, Joan, and Riddell, A. G.: Treatment of Hepatic Coma With L-Glutamic Acid, New England J. M. **253**:1093 (Dec. 22) 1955.
20. Webster, L. T., Jr., and Davidson, C. S.: Hepatic Coma: Effect of Sodium Glutamate, J. Clin. Invest. **33**:971 (June) 1954.
21. Najarian, John S., and Harper, Harold A.: A Clinical Study of the Effect of Arginine on Blood Ammonia, Am. J. Med. **21**:832 (December) 1956.
22. Najarian, J. S., and Harper, H. A.: Comparative Effect of Arginine and Monosodium Glutamate on Blood Ammonia, Proc. Soc. Exper. Biol. & Med. **92**:560, 1956.

Case Reports

Common Duct Stone

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On December 30, 1956, at 2:15 a.m., I was called to see Mrs. L. C., being told over the telephone that she was suffering from acute indigestion. I arrived at the home a short while later to find the patient sitting in bed, retching and vomiting bile tinged fluids. She gave a history that she had been perfectly well until 10:00 p.m. The first symptom was pain in the pit of her stomach and followed by the vomiting of her evening meal. The pain and vomiting had continued until the time of my arrival. There was no past history of a similar illness or of "indigestion" at any time.

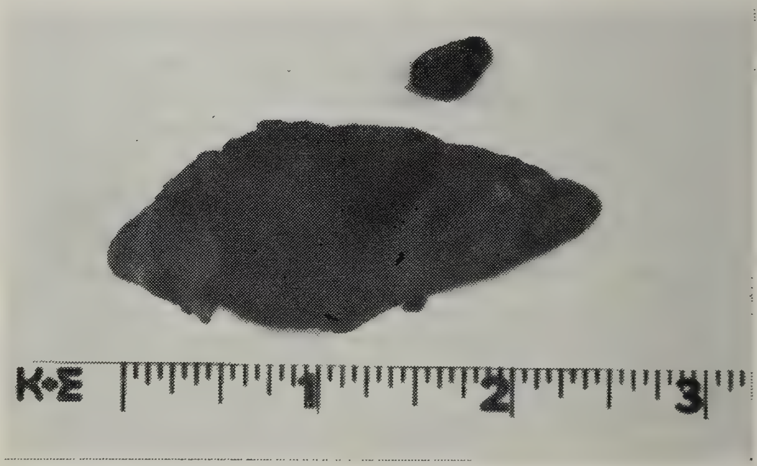
At the time of my initial examination, I found her with normal temperature, pulse and respiration and blood pressure of 130 systolic and 70 diastolic. Examination of the abdomen revealed localized tenderness over the gallbladder. I made a diagnosis of acute gallbladder colic, probably with cholelithiasis, and proceeded to give her a hypodermic injection of morphine and atropine. Following that treatment, she obtained relief for about two hours. The same morning at about 8:00 a.m., the husband phoned me that his wife was suffering again, but he believed she was suffering more than ever. I again visited the home and found the patient to be having colicky pains in the epigastrium and some nausea. After some persuasion she consented to enter the hospital for further examinations.

On admission to the hospital a flat plate of the gallbladder was negative for stones. The red blood count was 4,500,000 and the white blood count 7,900. The differential at 8:00 a.m. the same day revealed 14 per cent stabs. At 3:00 p.m. the same day the pain shifted from the epigastrium and gallbladder area to the left upper quadrant of the abdomen with pain radiating to the left shoulder. At 8:00 p.m. there was some beginning gaseous distention of the abdomen. The vomiting had stopped and the patient was feeling better.

She was given Teleogaque gallbladder dye with the hope of obtaining further study of the gallbladder the following morning. There was no further vomiting, but, by the following morning, there was increasing abdominal distention and some generalized rigidity indicative of peritonitis. The gallbladder dye had been retained, but x-ray revealed the dye to be within the lumen of the intestines and no visualization of the gallbladder. An upright flat plate of the abdomen revealed a couple of well defined fluid levels and several small loops of small bowel containing gas. With these obvious indications, exploratory laparotomy was decided upon.

Prior to operation a pelvic examination was done because of a low midline incision and a history of a pelvic lap some fifteen years previously, at which time the tubes and left ovary were removed. A hard movable mass about 5 to 7 cms. was found in the left adnexal region. Rectal examination was essentially normal. The temperature had increased to 100 F. and the white blood cells to 12,500. Urine examination was normal. It was thought a slight icteric tinge was present in the skin and sclera, but the patient insisted that no abnormality was present in either.

Because of the surgery schedule, the patient was not operated upon until about 1:00 p.m., or about thirty-nine hours after the initial onset of symptom. Under pentothal anesthesia a right paramedian incision was made and the pelvis was explored and free bile tinged fluid in large quantities was encountered. Several adhesions of the small bowel to the uterine fundus and to the parietal peritoneum were encountered and released. No mass otherwise was found in the pelvis. The appendix was identified and removed, although it was not part of the pathology. The incision was extended to the costal arch on the right and the gallbladder was found to be exactly in the midline, high and posterior to the xiphoid process. A large calculus was found in the common duct. The size of the common duct calculus is of unusual interest because of its enormous size. The gallbladder had perforated near the ampulla and contained a calculus about 1 by 2 cms. in diameter. The greatly dilated common duct was opened and the stone in the common duct was removed with more than usual difficulty; and, in fact, it was fractured in the process of extracting it from its tightly imbedded position. The stone measured approximately 2½ inches in length and approximately 3 inches in circumference. A long "T" tube was placed in the common duct and the repair of the common duct was made. The gallbladder was removed and the abdomen closed in layers.



The small stone is the gallbladder stone; the large stone is the common duct stone.

The patient was returned to her room at about 4:30 p.m. in good condition. She had a good postoperative night and experienced no further vomiting. On the morning of January 1 she was comfortable, was not nauseated and experiencing no more pain than the usual postoperative gallbladder surgery patient. At that time a Miller-Abbott suction tube was inserted as a prophylactic measure. The patient received one

Case Report

Encopresis

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THE TERM ENCOPRESIS was first used by Weissenberg in 1926 to denote psychogenic fecal soiling. Incontinence of feces due to organic disease is usually referred to simply as fecal soiling; the term encopresis is restricted to fecal soiling of emotional origin. In children who have no grossly evident neurologic disease, fecal soiling is so commonly emotional in origin that the term encopresis tends to be applied to virtually all fecal soiling in children.

That fecal soiling may be emotional in origin was observed as early as 1882 by Fowler.[1] Fowler reported a case in which undue educational pressure by the parents on a 7 year old boy had turned him into an automaton who could spout endless amounts of factual data, which gratified his ambitious parents. However, as Fowler pointed out, "Under such conditions it is not to be wondered that something gave way and, fortunately for the brain, it was the anal sphincter." Since Fowler's original observations various authors have pointed out the psychogenic factors in encopresis. Burns[2] describes encopresis as a "psychogenic disorder . . . , in protest against an inimical and threatening environment; an unconscious reaction both of aggression and fear." Detailed psychiatric studies of children with encopresis are rare; Warson[3] in 1954, reported a case intensively studied over a period of time, in which it was felt the encopresis was a reaction to various insecurities and inadequacies in the mother-child relationship. Other authors[4, 5] have described a broader spectrum of emotional factors causing encopresis.

As a rule only those children with rather severe personality disorders, in addition to their encopresis, are seen in child guidance clinics and in psychiatric consultation. There is a tendency, therefore , in the psychiatric literature to reflect the attitude that encopresis is usually associated with rather severe and deep rooted personality difficulties. Pediatricians and family physicians, who see a much larger number of unselected cases of encopresis, tend to take a much less serious view of the condition. In the clinics of a pediatric hospital one gets the impression that encopresis can occur in a wide spectrum of different types and degrees of emotional stress. At times it seems to occur in children who are relatively well adjusted emotionally, but who are going through transitory periods of emotional tension; it may also be seen in more disturbed children with varying types of more serious personality disorders. Fecal soiling is generally not referred to as encopresis until the child has reached the age of 4 or so, though most children are of course toilet trained at a much earlier age.

The eventual prognosis for the symptom itself is excellent. Encopresis virtually always disappears during puberty or adolescence, and often before. Encopresis lasting into adulthood is so rare as to be almost unheard of, unless the individual is overtly psychotic. Encopresis is most commonly seen in children of grade school age and is seen much less commonly after puberty occurs. A much smaller number of cases is seen during adolescence. This is in marked contrast to enuresis, which may often last through adolescence and well into early adulthood.

Encopresis may occur after the child has been successfully toilet trained; it may also appear as a persistent inability for toilet training to be achieved. Physical evaluation almost invaribly reveals no organic pathology associated with the condition. If the child has held back large amounts of feces in the rectum and lower colon in association with the encopresis, there may occasionally be a minimal amount of passive dilitation of the lower segment of the colon on barium enema study. This finding is secondary to long standing retention of feces rather than etiologic to the encopresis.

Encopresis is often a serious problem for it may be socially incapacitating. The children have such a persistent foul ordor that their presence may be intolerable in school. School is the first major area of social adjustment for a child after the original home environment. If the child's presence

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From The Children's Mercy Hospital, Kansas City, Missouri. This study was made under the auspices of The Greater Kansas City Mental Health Foundation, and the observations were made in conjunction with members of the Department of Pediatrics of the University of Kansas School of Medicine.

Common Duct Stone—Continued

unit of whole citrated blood and one liter of 5 per cent glucose in solution "D" at the same time. The Miller-Abbott treatment was continued for two days and removed. The patient made an uneventful recovery, was remarkably free from pain and was discharged from the hospital in ten days, ambulatory and with the long "T" tube in place.

This case is reported because of the unusual size of the common duct stone, the sudden onset of violent symptoms, and the unusually smooth convalescence and rapidity of recovery.

in school is no longer tolerable because of this symptom, it presents a rather urgent problem in terms of the child's long term emotional and social development. Similarly, encopresis may exclude the child from other areas of social activity outside the home. Considerable derision and depreciation of the child by his siblings, parents and other children may create further problems in the social adjustment of the child. Occasionally, the hygienic problems associated with constant presence of feces on the buttocks may lead to skin rashes, but this is surprisingly uncommon in encopresis.

The emotional factors which may be involved in the etiology of encopresis are varied. One of the most common and least serious causes of transitory encopresis is infantile regression of a child upon the birth of a younger sibling. When a child sees the newborn sibling obtain what he feels is a disproportionate amount of the mother's time and attention, he may attempt to compete with the new child by undergoing regression in certain levels of his own behavior. Regression in speech, for example, to baby talk is common; enuresis for a period of time may occur, and also the child may become encopretic. This problem usually does not last more than a few months, if that long. It can be handled by talking simply and reassuringly to the child, indicating to him that his position in the affection and love of the parents is not threatened by the advent of a new child in the house. This can often be done by identifying the older child as a helper and aid of the parents in their multiple tasks of caring for the new child. This defines the child's position as a beloved and valued assistant to the parents, rather than a puzzled competitor of the newborn sibling.

One more often finds that encopresis has arisen out of a hostile battle between mother and child over toilet training. Toilet training is one of the first major areas in which the parents begin to make extensive demands on the child for socially acceptable behavior. If there has been a great deal of parental hostility, anxiety and rejection to the child, he may at times seize upon the area of toilet training as a way of hostilely refusing to comply with their expectations. The counter hostility of the parents causes the problem to become more entrenched, and a pattern of persistent encopresis may be set up. Quite unconsciously the child has found the encopresis to be a symptom which infuriates his mother and offers ample opportunities for getting back at someone whom he feels has not met his emotional needs.

At other times encopresis occurs when the child's dependancy needs are threatened; that is, when his need for a secure and affectionate home environment is not being met. For example, we have seen encopresis begin when a child felt that there was danger of the family being broken up and also when parents were attempting to get back their children from divorced mates.

At other times encopresis occurs in children who are withdrawn and schizoid. These children have found their interpersonal environment so lacking in gratification and so emotionally painful that they have retired from it into a world of daydreams and fantasy. They pay little attention to the control of their bowels as merely one facet of their diminished contact and interaction with the rest of the world around them. At times encopresis occurs when relatively well adjusted children are faced with some kind of unusual stress. It is to be emphasized that encopresis may occur as a symptom of widely varying degrees of emotional problems. To illustrate types of emotional problems seen in encopresis, two cases are reported below.

CASE REPORT

Case 1. George was a 7 year old boy who was referred after examination in the clinic and did not reveal physical findings to account for his encopresis. He had been noted to be a somewhat anxious boy and this was felt to be further reason for evaluation of possible emotional factors in his symptomatology.

George had begun his encopresis approximately nine months prior to the time he was first seen. He had begun to have encopresis several times daily and also nocturnal and diurnal enuresis. His symptoms had become progressively more severe, and for the last several weeks he had been unable to attend school because of the offensive odor which he constantly had. His underwear contained small amounts of feces at almost all times. Physical evaluation and neurologic examination revealed no evidence of organic pathology. A barium enema study had been unremarkable and other routine laboratory data revealed no abnormalities; no significant pathology contributory to his condition was discovered upon x-ray of the lumbar spine.

On inquiry into the environmental history of the patient, it was found that the patient's parents had separated when he was 3. The patient's true father was a disturbed person who had undergone an emotional upset following the death of his own parents when the patient was 1 year old. The father's behavior toward his wife and family remained persistently altered and it become increasingly difficut to live with him. Following their separation the mother divorced the father, and approximately two years later remarried. The relationship of the step-father to the mother and children was good, and for some time little further contact occured with the true father. Shortly before the onset of the patient's encopresis the true father reappeared and began to cause a great deal of difficulty. He constantly threatened to take the patient away from his mother. He at times had secret meetings with the patient in an automobile and took him for long rides. On these rides, apparently, the father told him upsetting and untrue things about his mother and step-father and threatened to take the patient away from this family. It was in the setting of all this turmoil that the patient's encopresis began.

We felt that the mother had been able to give the child reasonable amounts of secure love and affection despite her marital difficulties during the early years of the child's life. On evaluation of the boy it was our feeling that basically he was not a seriously disturbed child. We felt that he was passing through a period of stress associated with a confusing and anxious environmental difficulty. Psychologic testing revealed a child of average intelligence who was struggling with many confused feelings about the roles of his parents; he had underlying feeling of isolation, loneliness and anxiousness.

A good deal of counseling was done with the patient and his mother. The emotional nature of the problem was explained to both of them and the mother was advised to pay as little attention to the symptom as possible, except to exercise reasonable hygiene and cleanliness in dealing with the boy. We indicated that whatever could be done to terminate the upsetting contacts this boy was having with his true father would be much in the boy's interest. We saw the boy a month later and his encopresis had improved somewhat but had not cleared up. At this point the boy was admitted to the hospital for a period of six weeks. During this six weeks he was seen several times weekly by our psychologist who explored his anxious feelings about his environmental stresses in a play therapy situation. We also felt that it would be helpful to separate him from the stresses in his home community for a period of time in order to allow him to resolve the symptom and get some understanding about his problem. During the period in the hospital his encopresis cleared entirely; he had remained continent of feces for a period of two weeks at the time he was discharged. The patient was seen at monthly intervals for three months and during that time he remained continent of feces and had no further trouble. He was also seen a year and a half later and was found to have remained well.

Case 2. Frank was a 5 year old boy who was seen for complaints of constipation and encopresis. The patient had never been toilet trained. The mother had begun to toilet train him when he was a year old. However, when Frank was 15 months old and before he was completely toilet trained he was put in a cast for a congenital subluxation of the right hip. He remained in the cast for five months. Following this the mother again began to toilet train him but was never successful. The boy's underwear always contained a small amount of feces. He often held back large amounts of feces for a long period of time, to the point of having some distention of the lower abdomen. On barium x-ray examination he was found to have passive dilatation of the lower colon secondary to a long standing withholding of feces. His only bowel movements consisted of the frequent small dribble of feces.

Physical evaluation, neurologic evaluation and other laboratory and x-ray studies of the child revealed no abnormalities. In interviewing the mother, it was our impression that the toilet training period had been a tug-of-war battleground between mother and child. There had been a good deal of difficulty in raising this child; much anxiousness and frustrated anger had focused itself on Frank's prolonged toilet training difficulties. We did not feel that either the mother or the child were severely disturbed, but that the mutual hostility and anxiousness of both of them had become centered in the toilet training and encopresis. This had become a rather effective weapon through which the child fought back at his anxious and angry mother.

We indicated to the mother that Frank had no organic disease and that his bowel disorder was emotionally determined. We advised her to pay little attention to the child's encopresis and fecal retention, and we also encouraged her to allow him other ways of expressing his angry and assertive feelings. While the child was in the hospital for a brief diagnostic work-up, the encopresis cleared quickly. This was pointed out to the mother; a good deal of interview work was done with her on this problem.

The child and mother were again seen in three months and the child had remained entirely continent of feces. The child's constipation is no longer a problem and the mother-child relationship has greatly improved since this aggravating problem is no longer present to excite the mother's hostility and the child's counter-hostility.

The management of encopresis may be relatively simple or may present persistent and difficult problems. In our experience the most profitable therapeutic measure consists in talking at length with the mother about the encopresis of her child. The nature of the condition is explained to her and she is carefully counseled to pay as little attention to the symptom as possible. Punishment, threats, cajoling and bribes are to be discontinued. It should be emphasized to the mother that no organic disease is present and that the child is not willfully producing this symptom. The emotional nature of the symptom is explained as clearly as possible. These interpretations are also made to the child; we feel they can be made to any child from the age of 4 or 5 on.

It is well for the pediatrician or family physician to inquire into the personalty of the child. It is often useful to suggest to mothers that extremely passive, subnormally assertive children should be allowed and encouraged to become much more assertive of their angry and aggressive feelings in socially acceptable ways. Occasionally the difficulties in the home are so patently obvious, such as severe marital problems, that the parents can be counseled that any steps they may take toward the amelioration of the general atmosphere at home will be helpful in the treatment of this condition. Medications, manipulative procedures, enemas and various other mechanical devices are rarely, if ever, useful. In our experience, counseling of parents and child over a period of several weeks to months usually results in clearing of the symptom.

As early as 1905, Goodhart and Still[6] noted that separation of the child from the home environment often led to cessation of encopresis. This finding has been repeatedly confirmed, and our own observations have led us to a similar conclusion. Separation of mother and child, with consequent lessening of the interpersonal stress which led to the encopresis, frequently results in cessation of the encopresis in a period of from three to eight weeks. If mother and child are both carefully counseled, the symptom usually remains cleared after mother and child are reunited. Though such separation is usually not practical or indicated, it nevertheless occasionally offers a way of breaking up a difficult symptom when other measures have failed.

Occasionally the pediatrician or family physician will find a child with encopresis is so disturbed that referral to a psychiatric facility for evaluation and possible treatment is indicated. When the child is found to be disturbed and to be adjusting poorly in various areas of interpersonal and social activity, the outlined measures will tend to be much less successful. The family physician or pediatrician may inquire how the child gets along at school, in the family and elsewhere. An inventory may be briefly taken as to how the child handles his affectionate feelings, his angry feelings, and whether he has other emotionally determined symptoms such as phobias, enuresis, tics. It is our feeling that the family physician or pediatrician can, and does, handle the vast majority of encopresis cases successfully. Some cases, however, occur in children with such extensive emotional problems that referral will be advisable. The availability of psychiatric services is too limited to permit referral of the bulk of encopretic patients. The majority of children who suffer from this difficulty will necessarily be handled, in the course of medical practice, by their family physician or pediatrician.

Encopresis may occur at times, as in the second case, in association with a long standing withholding of feces by children. This leads to the syndrome of fecal retention and encopresis which has been described in detail by Richmond and his coworkers,[6, 7] and which in older literature was referred to as obstipatio paradoxa. In general this condition is psychologically similar to encopresis and may be handled in much the same manner. In these cases it is especially important to allay the fears of the parents about the retention of feces which occurs. It is important to emphasize that if the parents will pay little or no attention to this difficulty the child will in time establish a healthy evacuation pattern. It is particularly to be emphasized that in children so called "regularity" of bowel movements is often not found. The normal child is usually irregular in bowel pattern and may go for extensive periods of time without bowel movements. In cases of fecal retention associated with encopresis it is particularly important that these facts be emphasized to the parents and that the parental anxiety about the child's bowel pattern be handled.

BIBLIOGRAPHY

1. Fowler, G. B.: Incontinence of Feces in Children, Am. J. Obst. **15**.985, 1882.
2. Burns, C.: Encopresis (Incontinence of Feces) in Children, Brit. Med. J. **2**:767, 1941.
3. Warson, S. R.; Caldwell, M. R.; Warinner, A.; Kirk, A. J. and Jensen, R. A.: The Dynamics of Encopresis, Am. J. Orthopsychiat. **24**:402, 1954.
4. Shirley, H. F.; Encopresis in Children, J. Pediat. **12**:367, 1938.
5. Lehman, E.: Psychogenic Incontinence of Feces, Am. J. Dis. Child., **68**:190, 1944.
6. Goodhart, J. R., and Still, G. F.: Diseases of Children, Churchill, London, 1905
7. Garrard, S. D., and Richmond, J. B.: Psychogenic Megacolon Manifested by Fecal Soiling, Pediat. **10**:474, 1952.
8. Richmond, J. B.; Eddy, E. J., and Garrard, S. D.: The Syndrome of Fecal Soiling and Megacolon, Am. J. Orthopsychiat. **24**:391, 1954.

Missouri Academy of General Practice

(Continued from page 733)

with six fifteen minute talks by different authorities. Following this will be a thirty minute panel discussion with each of the preceding speakers participating. The afternoon session offers a unique and effective approach to gastroenterologic problems with eight out-standing participants on this subject, who will complete Wednesday's scientific session with a thirty minute panel discussion.

At 7:30 p.m. the annual banquet will be held in the Ball Room of the Hotel Governor as has been the custom. Dr. Leon Hill, Amarillo, Texas, will be the speaker of the evening.

On Thursday morning, October 31, there will be a symposium on chest diseases with ten fifteen minute talks by different authorities; it, too, will be closed with a thirty minute panel discussion. The afternoon session will be a symposium on heart disease.

Four of the fourteen eminent teachers already committed to participate in the various symposia of the annual session are from out of state. Among them is Dr. Charles C. Bailey, Professor and Head of the Department of Thoracic Surgery, Hahnemann Medical College and Hospital, Philadelphia. Dr. Bailey's recent appearance on the cover of *Time Magazine* should familiarize him to all Missouri physicians—even those who have not followed his many contributions to the literature of thoracic and heart surgery. Dr. H. M. Pollard, Professor of Internal Medicine at the University of Michigan Medical School and Vice President of the American Gastroenterological Association, will most certainly enliven Wednesday afternoon's symposium on gastroenterology. Dr. N. C. Hightower, Director of Laboratories for Clinical Investigation and Research of the Scott, Sherwood and Brindley Foundation, and Consultant in the section of gastroenterology in the Scott and White Clinic in Temple, Texas, will contribute authoritatively to the symposium on gastroenterology. Two eminent out of state speakers will participate in Thursday's symposium on "Disease of the Chest." Dr. H. J. Moersch, Professor of Medicine at the Mayo Foundation, and also chairman of two sections of medicine at the Mayo Clinic is also past president of the American College of Chest Physicians. The session on pulmonary diseases is certain to gain much in interest and enlightenment by the participation of Dr. Katheryn R. Boucot, Professor of Preventive Medicine, Woman's Medical College of Pennsylvania. Dr. Boucot is also Associate in Medicine, Graduate School of the University of Pennsylvania and Head of the Division of Chronic Chest Diseases of the Philadelphia General Hospital. The annual banquet to be held Wednesday evening at 7:30 p.m. will be highlighted by an address by Dr. Leon Hill, who is one of the most widely traveled men in the public speaking field today. Dr. Hill makes regular appearances in twenty-five to thirty states in the union each year, addressing national and district groups of all types, regaling them with a repertorie of humor and wit that is at times astonishing. Dr. Hill's appearance will surely enliven and enrich the single social event of the session.

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[1] Pitt, M. B.: Leukorrhea. Causes and Management, J. M. A. Alabama *25*:182 (Feb.) 1956.

[2] Parker, R. T.; Jones, C. P., and Thomas, W. L.: Pruritus Vulvae, North Carolina M. J. *16*:570 (Dec.) 1955.

SEARLE

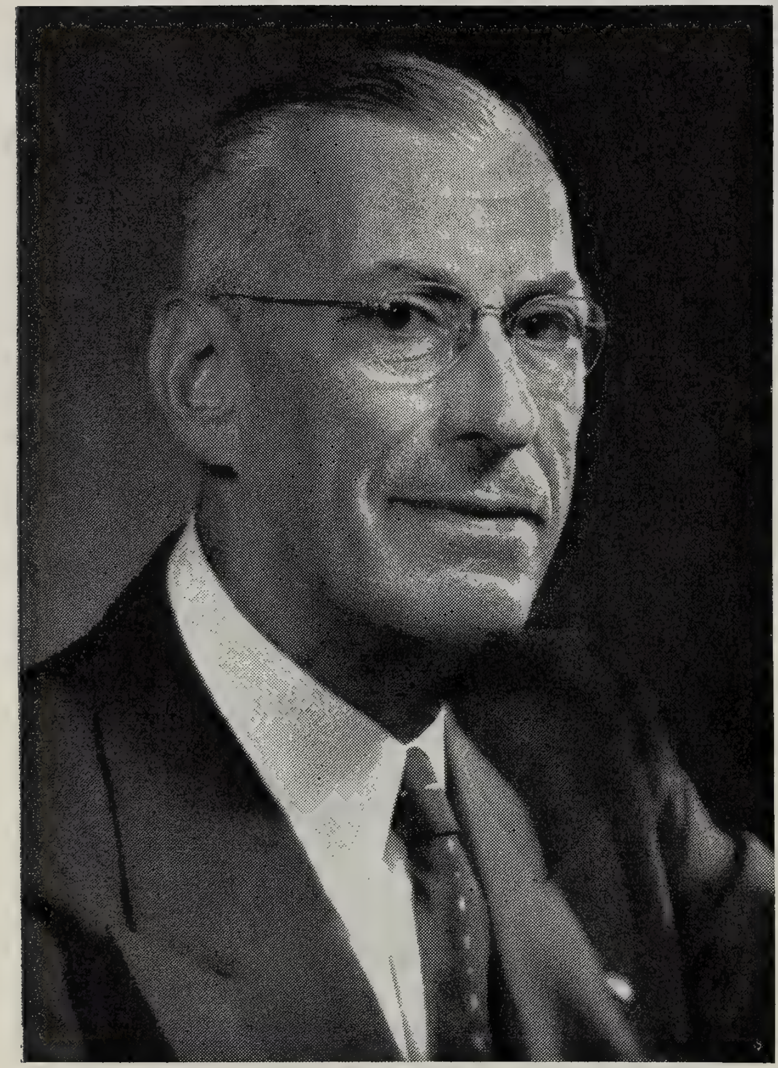
Special Article

The Personality of Medicine

DAVID B. ALLMAN, M.D., *Atlantic City, N. J.*
President, American Medical Association

THE PERSONALITY of medicine involves you the physician and you the patient as individual human beings interested in the scientific advances and complexities of modern medicine. It is only natural for the person who is ill to expect sympathy and compassion along with all that modern science can offer.

In medicine today, we physicians realize this and are giving renewed emphasis to the fact that it is our responsibility to minister not only to the human body and its ills—but also to human hearts, minds and emotions.



David B. Allman, M.D.

SCIENTIST AND HUMANITARIAN

The dedicated doctor knows that sympathy and understanding are just as important as scientific knowledge—in fact, he knew it in his heart even before he went to medical school, and that's why he became a doctor. So now, in practice, he tries to blend his science with his art. He knows that he must be both scientist and humanitarian. He knows that all the scientific training in the world cannot dry up the milk of human kindness.

But he also knows that he is fighting against the very secrets of life. He realizes that he can postpone death but not eliminate it. He knows that sometimes he can prolong the life of a mortal being, but he also knows that only God can confer immortality. So the doctor is constantly striving for a balance between personal, human values; scientific realities and the inevitability of God's will.

COOPERATION AND UNDERSTANDING

In the physician-patient relationship, for example, the ideal situation calls for cooperation and understanding by both parties. Nevertheless, the doctor has the main responsibility of trying to establish a warm, friendly relationship. He also has the obligation to do everything within his power to save life, restore health and ease the patient's emotional burden.

Yet, he must face the fact that sometimes he will be helpless. There are times when nothing the physician can do—nothing in medical science—can prevent death or save a patient from a lifetime of disability. When this happens, the doctor—despite his sympathy and concern for the patient—cannot break down emotionally . . . he cannot brood . . . he cannot become despondent . . . he cannot beat his head against the wall of what-might-have-been.

For the demands of his profession continue. He must keep himself mentally and emotionally capable of serving the patient in any crises that may arise. He must be able to employ his best judgment in deciding just what to tell the patient or his family—and how to tell them. And, above all, he must keep in mind his obligations to all his other patients—the need to serve them with calmness, efficiency and confidence.

THE DEDICATED DOCTOR

This whole problem was the subject of a recent magazine article entitled "What Goes On in a Doctor's Heart?" In that article an older physician gave this advice to a young doctor who was seri-

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Inaugural address presented at the American Medical Association Inaugural Ceremony, June 4, 1957, New York, N. Y.

ously disturbed over losing a patient with inoperable cancer:

"You have to decide whether the good you can do is more important than letting yourself grieve over every failure. There will be many failures, many patients for whom you can do nothing. And because you are human, there may even be patients you could have saved if you had been more competent, better trained, or if you had not made just one small error in judgment or treatment.

"But if you let these things overpower you—if you let yourself feel guilty—your other patients will suffer, too. You need a self-confidence that men in few other professions need. You have to know that you have done all you could do—or admit to yourself that you failed and make sure you never fail again in the same way. If you can't, you'll never be a real doctor." . . . I certainly agree with that advice.

THE DOCTOR STRIVES FOR BALANCE

Striving to achieve the proper balance is a never-ending struggle, but I think it is especially difficult for the young physician in his early years of practice. Sometimes, in trying to solve this problem, a doctor may overcompensate—he may seem too cool and impersonal. Actually, in most cases, that is not his real intention—he is simply fighting against these things that go on in a doctor's heart.

In my own experience—and I think most doctors would agree—the most difficult decisions have not been on the scientific side of medicine—such questions as what to do in an emergency . . . whether or not to operate . . . what medicines or drugs to give a patient. These decisions are to a great extent predetermined by the physician's training and experience. His most agonizing decisions lie in the field of human relations.

Last year, in a little town in Oklahoma, a 33 year old physician died of leukemia. As part of his legacy to his children, this fine doctor left behind a tape recorded journal of his thoughts on medicine in those last days of his life. Among the things he told his son—who he hoped would be a doctor like himself—were these:

"There will be times when you are filled with great happiness in medicine, but there are times when all the depths of hell would not come close to touching your soul. You will be blessed or cursed with an insight which few persons receive—the knowledge of length of life, of when and why . . . and worse, how . . . a person will die: painless or painful, fearless or fearful, weak or strong. Knowing these facts, you will have to decide how to tell a person or his family what is coming. Have you got the guts to do it? If not, get out now."

THE DOCTOR'S CHALLENGE

But how do you tell a husband that his young wife will not live long enough to have her baby?

How do you tell a man in the prime of life that he has only about six months left?

How do you tell parents that their child will never walk again?

There are no textbooks, no rules of thumb, no easy yardsticks governing such matters of human heartbreak. Each one is an individual problem which must be solved according to the mental and emotional capabilities of the people involved.

Most physicians learn how to meet these devastating problems—and in the process they frequently gain strength from those patients who face death or disability with great courage. Yet, at times, a doctor feels that he cannot win. Sometimes he is criticized or damned for losing what was actually a hopeless case. At other times he is overpraised for what was actually a routine treatment and recovery.

THE DOCTOR'S REWARD

He finds his compensation in those happy, shining moments in medicine when he sees the good he can do. For the sincere physician—for the real doctor—no amount of money, no amount of fame or publicity, no amount of professional eminence, no amount of mink coats and Cadillacs, can buy that look on a mother's face when he can say: "your little boy will live, and he will walk and play like other children" . . . that look on a husband's face when he says: "your wife is fine and the baby looks just like you" . . . that look on a child's face when he can say: "your daddy is going to be all right."

These are among the elements that shape a doctor's heart and mind. Over the years he realizes the vital, undeniable importance of the individual —and of other basic values in medicine such as ethics, the patient's freedom to choose his own doctor, and the physician's freedom to employ his knowledge in the best interest of each patient. He comes to see that these values—although they may present themselves more intensely or dramatically in medicine—are but reflections of the best that must be preserved in all phases of human life.

Along with his constant concern over human, personal values, the physician is primarily a man of science. He is educated and trained to think, observe, investigate, evaluate and make careful judgments. With human life and health in his hands, he must be cautious and conservative.

THE DOCTOR AS A CITIZEN

But he is more than just a doctor. He is a neighbor, family man, member of the community, American citizen. If he has a full recognition of his obligations, both as physician and citizen, he takes an active interest in community affairs and public issues. He realizes that citizenship is a two-way street, carrying not only benefits but also responsibilities. He knows that it is his duty to contribute his share of actions and opinions—especially on issues involving health and medical care.

Yet, when the physician ventures into the realm of public affairs, he frequently is accused of being too conservative. Of course, he is conservative—in the best sense of the word. All of his education and training . . . all of his experience in practice . . . all of his exposure to human nature . . . all of these have given him a profound respect for certain proven, fundamental principles that should be conserved—in medicine and all of human life.

MEDICAL FREEDOM ESSENTIAL

In medicine, for example, he knows that first rate medical care—including humane consideration for the problems of the individual—cannot survive if patients and physicians are shackled by rules, regulations, controls and assembly line procedures. Applying the same principle to the broader aspects of human and public affairs, he knows also that people's minds, hearts and souls cannot find true expression if they are oppressed by rigid ideologies or systems which bury the individual in the mass.

In medicine, the physician knows the cruel delusion of quack remedies, crackpot panaceas and premature acceptance of unproven drugs. In public affairs, likewise, he sees through the delusion of pie-in-the-sky promises which, far too frequently, are based not on American traditions and realities, but on vote-gathering potentialities.

Above all, in this troubled world today, he perceives the need for a new revolution—a revolution against opportunism, expediency and materialism . . . a return to the original American ideals of freedom, personal responsibility, individual initiative and, above all, faith in God.

With these thoughts in mind, I dedicate myself —as President of the American Medical Association—to the task of preserving the best in the personality of medicine . . . the best in the personality of America.

AMA Annual Session

New York, New York
June 3 to 7, 1957

REPORT OF MISSOURI DELEGATES TO THE AMA

JOSEPH C. PEDEN, M.D., *St. Louis;* F. L. FEIERABEND, M.D., *Kansas City;* DURWARD G. HALL, M.D., *Springfield,* AND H. E. PETERSON, M.D., *St. Joseph*

Report of this meeting by F. L. Feierabend

The Delegates from Missouri were all present at the Session and in attendance at Meetings of the House of Delegates. Also present were Dr. Walter Baumgarten, St. Louis, Alternate Delegate; Dr. H. Relton McCarroll, St. Louis, Delegate from the Section on Orthopedics; Dr. Alphonse McMahon, St. Louis, Chairman of the Committee on Scientific Assembly; and Dr. Walter S. Sewell, Springfield, President of the Missouri State Medical Association.

Dr. Durward G. Hall served on the Reference Committee on Miscellaneous Business.

The meeting was an excellent one, and there was not too much in the way of controversial issues. Dr. Gunnar Gundersen of LaCrosse, Wisconsin, a Member of the Board of Trustees since 1948, was elected President-Elect of the AMA. Dr. David B. Allman of Atlantic City, New Jersey, was installed as the 111th President at a marvelous inaugural ceremony on Tuesday evening. This was held in the Grand Ball Room of the Waldorf-Astoria Hotel. There were several excellent talks made, but the person who really stole the show was Mr. Henry Viscardi, Jr., of West Hempstead, New York, Founder and President of Abilities, Incorporated. This is a nonprofit organization which develops and employs so-called severly disabled persons. Mr. Viscardi was born without legs, and he walked off the stage without the aid of a crutch or cane—he did an excellent job of walking. He has demonstrated that he can handle himself well, both physically and mentally, and the talk that he made was impressive. He insists that persons who have physical disabilities should not expect to be treated with any more consideration than persons who do not, and he does not want any such consideration for his people. These persons want to compete the same as anyone else, and they are doing a magnificant job. He received the special citation to laymen for advancing ideals of medicine and contributing to public welfare. This is only the third time in history that a special citation has been awarded to a layman.

This was the largest meeting ever held by the

in the menopause . . .

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†T.M. Reg. U.S. Pat. Off. for sustained release capsules, S.K.F.

AMA. There were more than 19,000 registered, and this breaks the record which was set in 1953 when 17,958 physicians registered.

The 1957 Distinguished Service Award was voted to Dr. Tom Douglas Spies, Head of the Department of Nutrition and Metabolism at Northwestern University, and Director of the Nutrition Clinic at Hillman Hospital, Birmingham, Ala., for his outstanding contributions to the science of human nutrition.

The Goldberger Award in Nutrition and Research was presented to Dr. Paul Gyorgy of Philadelphia.

An AMA citation was awarded to Parke, Davis & Co. for its continuing series of institutional advertisements telling the story of medicine and medical progress.

Dr. H. G. Weiskotten retired after many years as Chairman of the Council on Medical Education and Hospitals. He received two bound volumes of letters of appreciation and also an ovation from the House of Delegates. The House elected Dr. Clarke Wescoe, Lawrence, Kansas, Dean of the School of Medicine of the University of Kansas, to succeed Dr. Weiskotten. He was elected by an overwhelming majority.

At the election, Dr. Jesse Hamer, Phoenix, Arizona, was elected Vice President; Dr. George F. Lull, Secretary; Dr. J. J. Moore, Treasurer; Dr. E. Vincent Askey, Los Angeles, Speaker of the House, and Dr. Louis Orr, Orlando, Florida, Vice Speaker of the House.

Four members of the Board of Trustees were elected. This is the first time in many, many years that as many as four were elected to the Board of Trustees. Dr. George Fister, Ogden, Utah, succeeds Dr. James R. Reuling; Dr. Cleon Nafe, Indianapolis, succeeds Dr. James R. McVay, Kansas City; Dr. James Z. Appel, Lancaster, Pennsylvania, succeeds Dr. Thomas P. Murdock, deceased; and Dr. Raymond McKeown, Coos Bay, Oregon, was elected to succeed Dr. Gundersen, who was elected president.

Subsequently, Dr. Edwin S. Hamilton, Kankakee, Illinois, was elected Chairman of the Board of Trustees. Dr. Homer L. Pearson, Jr., Coral Gables, Florida, was renamed to the Judicial Council.

Two new members were elected to the Council on Medical Education: Doctor Wescoe and Dr. Warde B. Allan, to succeed Dr. Franklin D. Murphy, Lawrence, Kansas.

Dr. Robert L. Novy, Detroit, was reelected to the Council on Medical Service, and Dr. Hoyt Woolley of Idaho Falls, Idaho, was chosen to replace Dr. McKeown. Dr. Warren Furey, Chicago, was reelected to the Council on Constitution and By-Laws.

At one of the meetings, the Illinois State Medical Society made a contribution to the American Medical Education Foundation of $170,450.00. This was presented to Dr. Louis H. Bauer, New York, who is the Head of the Foundation. It is feeling and the desire of the four Delegates from Missouri that it would be a wonderful thing for the Missouri State Medical Association to do something to make a contribution to the American Medical Education Foundation. This certainly is a method of demonstrating to the social planners that doctors are trying to take care of their own, and it seems to me that it is an excellent thing to do.

One of the most important things accomplished at this meeting was completion and adoption of new principles of Medical Ethics, or the so-called "Ten Commandments." This is made up of ten sections, seven of which had been approved previously, and the balance were approved at this meeting.

There was only one section on which there was much controversy. This was section seven which now reads as follows: "In the practice of Medicine, a physician should limit the source of his professional income to medical services actually rendered by him, or under his supervision, to his patients. His fee should be commensurate with the services rendered and the patient's ability to pay. He should neither pay nor receive a commission for referral of patients. Drugs, remedies, or appliances may be dispensed or supplied by the physician provided it is in the best interest of the patient." This section previously had the term "exploit" in it, and there was considerable discussion relative to the definition of this particular term. It was decided that it could not be described accurately; therefore, the term was omitted entirely and I certainly favor such ommission. The writing of the section now merely states that the physician may provide certain things if it is in the best interest of his patient. This, to me, makes sense, and puts it up to the doctor who should have the ability to do the thing that is best for his own patient.

The other sections were completed, but they will not be given in this article because they will soon be printed in the *Journal of the AMA,* and I strongly urge that you read these. They are simplified; divided into ten sections; and, I believe, as do the other Delegates, that these cover the principles of Medical Ethics well.

The House adopted, "Suggested Guides to Relationships Between State and County Medical Societies and the United Mine Workers of America Welfare and Retirement Fund." These guides, it seems to me, are excellent, and should be used in directing our activities with this organization and with many other organizations that have similar activities. Everyone is expecting such an organization to be developed by organized labor soon, and there is such an organization known as PEMANENTE on the West Coast. These principles, also, will be printed in the *Journal,* but at this time, I think we should give some of them.

(1) "All persons, including the beneficiaries of a third party medical program such as the UMWA Fund, should have available to them good medical care, and should be free to select their own physicians from among those willing and able to render such service."

(2) "Free choice of physician and hospital by the patient should be preserved."

There are three sections to this particular division, all of which should be read carefully and followed carefully by doctors who want to do this work.

The Medicare program received considerable discussion. The Delegates adopted one resolution condemning any payments under the Medicare program "to or on behalf of any resident, fellow intern, or other house officer in similar status who is participating in a training program." This, in my opinion, is a wise decision because when residents and interns are permitted to collect for their services, it contributes to a hospital's practicing medicine, and it also contributes to a situation of having residents do things for these people that may not be done for others. This is a wise decision on the part of the House of Delegates.

There was considerable discussion relative to the Medicare program as to whether or not there should be a fee schedule; if it should be on a service basis or if it should be on an indemnity basis. There are states that operate now with no fee schedule, and there are doctors who feel that where there is a fee schedule, it will contribute to the increase in cost of medical care; to this statement, I thoroughly subscribe. Some of these fee schedules may come under investigation at a later time and prove to be embarrassing. There are some states in which a service plan is prohibited by law; obviously, these states operate either as an indemnity plan or have an open-end fee schedule where there is no fee schedule whatsoever.

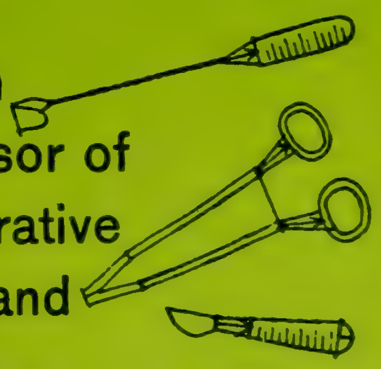
Social Security for Doctors was again rejected. The Delegates reaffirmed their opposition to compulsory coverage of physicians under the Old-Age and Survivors Insurance provisions of the Social Security Act. The House of Delegates reaffirmed its support of the Jenkins-Keogh bill. This bill provides self employed persons an opportunity to take part of their income and invest it in certain definite ways which are previously determined and, in this way, develop their own Social Security program. There is an excellent article which appeared recently in *Medical Economics* discussing this particular bill, and it may be well to read it. The Delegates also supported the Bricker Amendment to abridge the President's treaty-making power. One resolution was introduced that was favored by everyone, but obviously received no official action in the House of Delegates. This was the resolution recommending repeal of the Federal Income Tax Law. It seems that most people would like to see this done, but no action was taken.

Relative to the use of stimulants in athletics, the House directed the Board of Trustees to investigate the indiscriminate use of stimulates, such as Amphetamine, particularly in relation to the athletic program.

Another act which seems to be important is that the House directed the Speaker to appoint a Committee of five House members to study the Heller Report, a management survey of the Association's organizational mechanism. This, I believe, will prove to be exceedingly interesting and important.

I recommend for reading the Washington Report written by Gerald Gross, No. 521, which covers a number of the activities, together with his comments. The first paragraph of that report is of special interest.

All of the Delegates were present and attended all of the Meetings together with getting around and getting acquainted with a number of the other Delegates at various rooms. The Delegates all appeared before the Council of the Association recently and made some suggestions which, in the opinion of the four Delegates, are important in being helpful so that the Delegates can do a better job for the Missouri State Medical Association.



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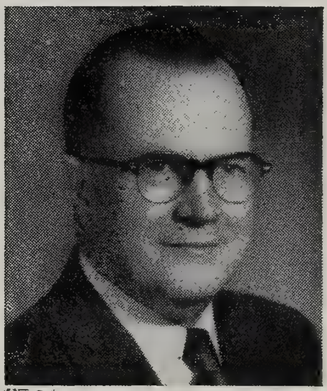
President's Page

Totally and permanently disabled workers became eligible July 1, 1957, for Social Security benefits at age 50, under an amendment adopted by Congress last year. The amendment was part of Public Law 880.



A special committee of the American Medical Association, known as the Committee on Medical Rating of Physical Impairment, studied the law and published information about it in the *Journal of the American Medical Association,* June 1, 1957, pages 562 and 566-571. The chairman of the committee was Dr. James R. McVay, Kansas City.

The agency in Missouri which has been designated to make determinations of disability is State Vocational Rehabilitation Agency, Department of Education, Jefferson City. The A.M.A. article stresses that attending or examining physicians are not expected by law or administrative regulation to express their opinions as to whether or not an applicant is disabled as defined in the law.

One pertinent provision of the law states: "An individual shall not be considered to be under a disability unless he furnishes such proof of the existence thereof as may be required." The applicant is required to obtain, at his own expense, sufficient medical evidence from which a determination in his case may reasonably be made by the agency.

Information as provided by the A.M.A. committee will be published in an early issue of Missouri Medicine.

Walter S Sewell M.D.

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31
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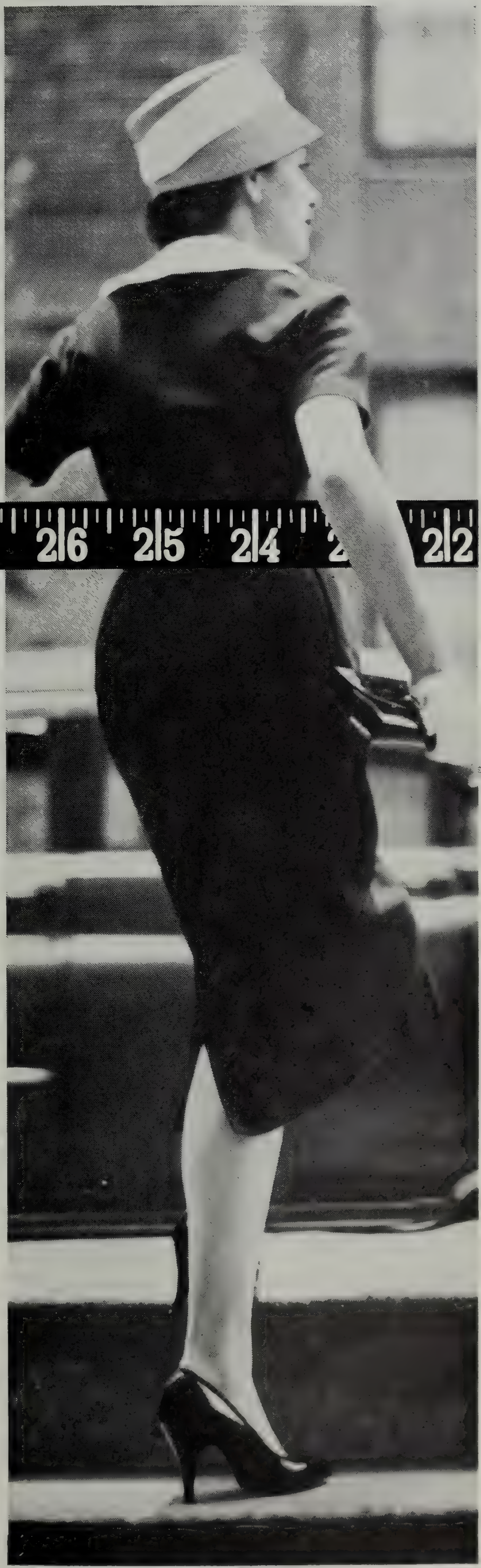

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References: (1) Holt, J. O. S., Jr.: Dallas M. J. *42*:497, 1956. (2) Gelvin, E. P.; McGavack, T. H., and Kenigsberg, S.: Am. J. Digest. Dis. *1*:155, 1956. (3) Natenshon, A. L.: Am. Pract. & Digest Treat. *7*:1456, 1956.

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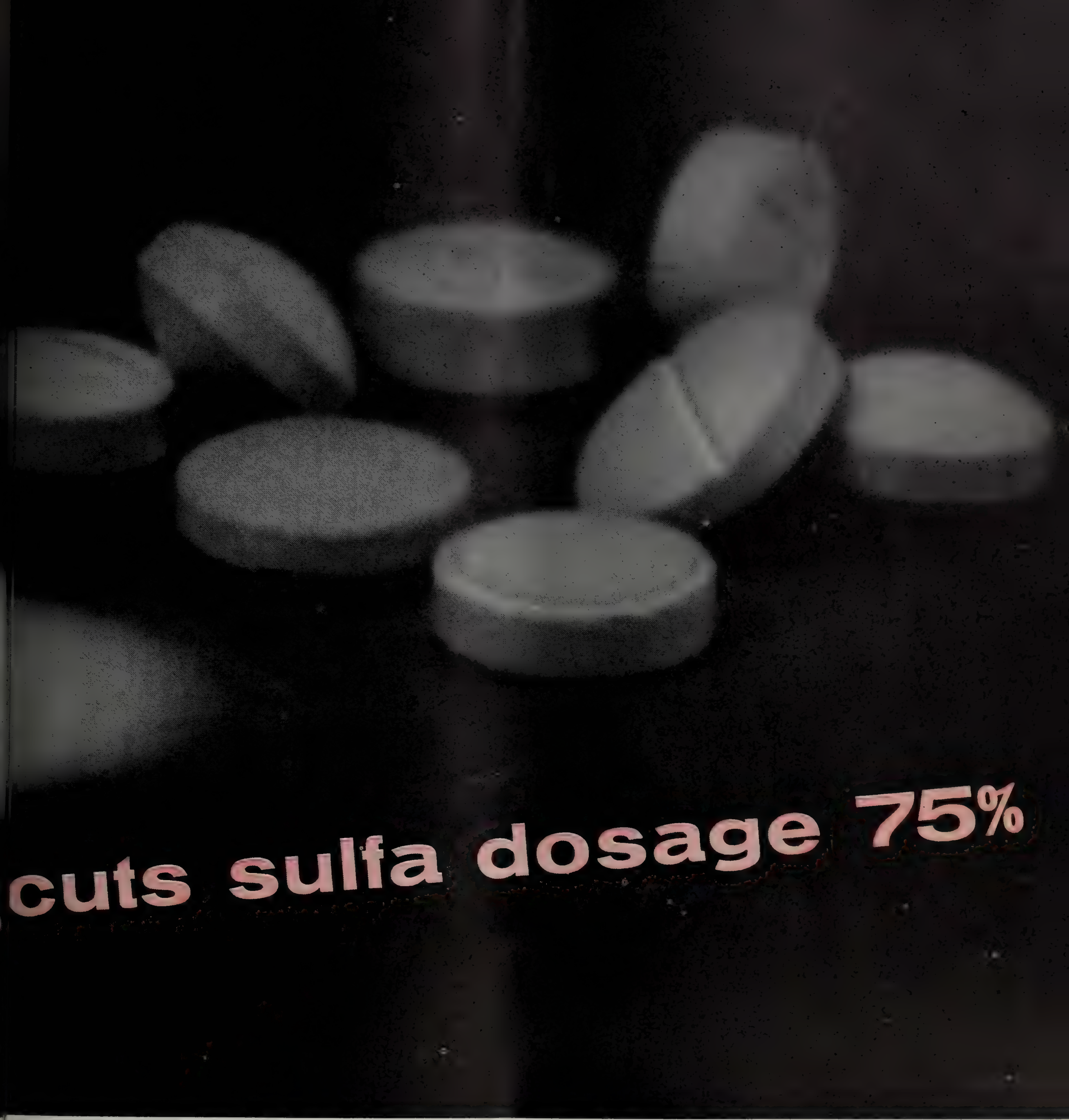

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(1) Boger, W. P.; Strickland, C. S. and Gylfe, J. M.: Antibiot. Med. & Clin. Ther. 3:378 (Nov.) 1956.

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EDITORIALS

Heedless Horsepower

A new deadly disease has the American people in its grip and no miracle drug is in sight to stop its frightful toll of human lives.

Heedless horsepower is the chronic disease of this age of the automobile. Its symptoms are many and various—the heavy foot on the accelerator, the eye fixed on the climbing speedometer, the hand on the horn, the mind idling while the car is in high.

In its 23rd annual highway safety publication, "Heedless Horsepower," The Travelers Insurance Companies of Hartford, Conn., point to the fact that 40,000 Americans were killed and 2,368,000 injured in 1956 on U. S. highways. That is an increase of 6 per cent in fatalities and nearly 10 per cent in injuries over 1955's toll.

"The disease of heedless horsepower is highly contagious," the booklet states. It can be spread by an irresponsible word, an inflated claim, a careless example. And everyone who is in a position to influence drivers should learn that horsepower, in the hands of the heedless, is the fundamental cause of our ever-mounting toll of disaster.

In recent years, engineers have made many attempts to feature safety equipment in the new cars. Probably many lives have been spared by safety glass, seat belts, padded instrument panels, all-steel bodies. But these safety devices can be nullified by any combination of speed plus carelessness, thoughtlessness or lack of judgment by the driver behind the wheel.

However, it is the driver, not the manufacturer, the advertiser or the salesman who must bear the greatest weight of blame. For it is the driver who can control the horsepower and use it safely for his greater ease and convenience. It is the driver who is lectured to, legislated at, prayed for, preached to . . . in every medium of public expressions known to man. And it is the driver who nods sagely, promises readily, and forgets everything but his sense of overwhelming power when he steps on the gas.

Casualty lists on U. S. highways have mounted steadily until in 1956 all records of heedless haste and needless waste were shamefully broken. The facts of human suffering and death speak for themselves.

Human error is by far the biggest single cause of accidents. Figures compiled by The Travelers show that in 96.4 per cent of the fatal crashes last year, the automobile was in apparently good condition. Clear, dry weather prevailed in more than 85 per cent of these instances!

If this year's record is equal to that of 1956, one in seventy Americans will be a statistic, a pain wracked survivor, or a name in the obituary column.

New Physicians Licensed in U. S.

The physician population of the United States increased by 3,804 in 1956, according to the annual report on physician licensure by the American Medical Association's Council on Medical Education and Hospitals.

Actually 7,463 physicians received their first licenses to practice medicine and surgery in 1956. However, 3,659 physicians died during the year. Subtracting this number from the number licensed for the first time leaves a gain of 3,804 in the total American physician population.

State and territorial boards issued 14,543 licenses during the year, but 7,080 went to doctors already holding licenses from another state or to men who took examinations in more than one state.

Of the total licenses given, 7,122 were by written examination and 7,421 by interstate reciprocity and other methods. Compared with 1955, a near-record year exceeded only by 1946 and 1954, there was a decrease of 297 in the total number of licenses issued.

Most candidates who received licenses by examination came from the seventy-six approved four year medical schools in this country and eleven in Canada. The rest were from foreign schools, unapproved schools, schools of osteopathy, and schools no longer operating. Only 4.5 per cent of the 6,149 graduates of approved American schools failed to get licenses.

The greatest number of licenses (1,745) was issued by California. New York issued 1,355. More than 500 each were given in Florida, Illinois, Michigan, Ohio, Pennsylvania, and Texas. South Dakota granted the smallest number—eighteen.

The greatest number of graduates from any one school examined was 231 from the University of Tennessee, a state university. The greatest number examined from a private school was 175 from Tulane University School of Medicine. Twenty-seven schools each had more than 100 of their graduates examined for licensure.

The number of licenses issued on the basis of geographical areas were: New England, 407; Middle Atlantic, 1,532; East North Central, 1,437; West North Central, 824; South Atlantic, 1,210; East South Central, 469; West South Central, 624; Mountain, 175; Pacific, 720, and territories and possessions, 65.

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News

More than 400 people attended a meeting at St. Charles when the "Man of the Year" would be named by the Chamber of Commerce. Most surprised was **J. M. Jenkins**, M.D., St. Charles, named "Man of the Year" on his 75th birthday, who was called to the meeting supposedly to attend a patient.

A special award was presented at the Carthage Marble Corporation's awards dinner in May to **Homer E. Byrd**, M.D., Carthage, who has been company physician for more than twenty years.

Recently elected officers of the Missouri Heart Association are **Stanley F. Morest**, M.D., Kansas City, president; **Roland P. Ladenson**, M.D., Columbia, vice president; **E. E. Glenn**, M.D., Springfield, president elect; **W. B. Kountz**, M.D., St. Louis, secretary.

Serving as a board member of the Barry County Tuberculosis Association is **Mary Jane Newman**, M.D., Cassville.

The St. Louis University School of Medicine Alumni Association elected **Matthew W. Weis**, M.D., St. Louis as president of the organization at a meeting held during the American Medical Association session in New York in June.

Speaker at a ceremony of a family Y.M.C.A. charter in Kansas City in May was **Robert M. Myers**, M.D., Kansas City.

The Community Chamber of Commerce, St. Louis County, named **Roy A. Walther, Jr.**, M.D., Overland, as "Man of the Year" at a meeting late in June.

The American College of Chest Physicians reelected **Charles A. Brasher**, M.D., Mount Vernon, as governor of the College for Missouri at a meeting in New York on June 1.

Speaker at a meeting of the Missouri Association of Licensed Practical Nurses, Inc., held at Ironton in late May was **Emmett F. Hoctor**, M.D., Farmington.

Following the showing of a film on a cancer subject at a Carthage theatre, **George H. Wood**, M.D., **Charles H. Isbell**, M.D., and **E. J. McIntire**, M.D., Carthage, composed a panel for a question and answer period.

Speaker at a meeting this spring of the Franklin Pre-School Unit at Cape Girardeau was **Charles T. Herbert**, M.D., Cape Girardeau.

Speakers at a meeting of the Jackson Parent-Teacher Council held as an open forum this spring were **J. A. Kinder**, M.D., and **A. M. Estes**, M.D., Cape Girardeau.

The Jasper County Court has named **Joe E. Collins**, M.D., Joplin, as county physician for the western district.

The Dunklin County Tuberculosis Association recently elected **W. D. English**, M.D., Cardwell, president.

Master of ceremonies at the capping of fifteen practical nurses in Kirksville this spring was **G. R. Hudson**, M.D., Kirksville.

An annual seminar sponsored by the United Cerebral Palsy of Green Bay, Wisconsin, on May 1, was addressed by **Robert E. Bruner**, M.D., Kansas City.

Chiefs of services of the St. Louis County Hospital recently elected are Drs. **Dean Sauer**, **R. E. Funsch**, **O. P. Hampton**, **G. E. Roulhac**, **Dan Bisno**, **A. C. Stutsman**, **James F. Dowd**, **Sam J. Freund**, **Joseph L. Lucido**, **Robert K. Royce**, **Seymour Brown**, **E. L. Dorsett**, **R. O. Muether**, **C. H. Lohr**, **M. D. Marcus**, **Walter L. Moore**, **D. Goldring**, **J. P. Wyatt**, **S. J. Merenda** and **Joseph Levitt**.

The Kansas City Surgical Society recently elected **Frederick J. McCoy**, M.D., Kansas City, as vice president.

The American Medical Golfing Association elected **John A. Growdon**, M.D., Kansas City, as first vice president at its meeting on June 3 in Rye, New York.

The Sedalia Jaycees were addressed recently by **Donald C. Proctor**, M.D., Sedalia, who spoke on "Cancer."

The Audrain County P.T-A. Council had a meeting on "Health" this spring at which **William H. Jolly**, M.D., Mexico, was speaker.

The commencement address for forty-one nurses receiving diplomas from the Jewish Hospital School of Nursing on May 15 was presented by **Paul S. Lowenstein**, M.D., St. Louis.

The American College of Allergists, meeting in Chicago, this spring, installed **Orval R. Withers**, M.D., Kansas City, as president.

A life honorary membership in the Springfield District Dental Society was presented to **James R. Amos**, M.D., Springfield, for his "outstanding service to dentistry" as state health director.

The Woman's Auxiliary to the Jefferson County Medical Society had as speaker at their annual health day luncheon, **Mildred A. Norvel**, M.D., University City.

The St. Charles County Tuberculosis Association at recent elections, elected **William H. Poggemeier**, M.D., St. Charles, as president.

The Mexico Rotary Club had as speaker at a recent meeting **William A. Sodeman**, M.D., Columbia.

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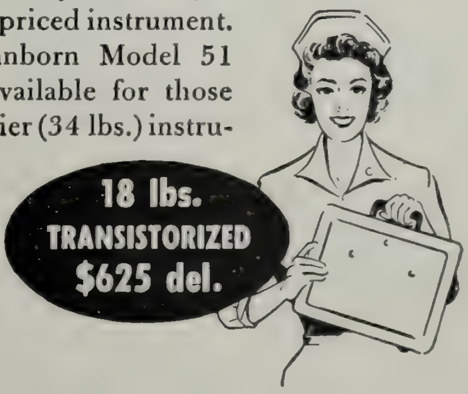
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"Home Accidents" was the subject of a talk by **Carter W. Luter**, M.D., Butler, before the Butler Rotary Club in June.

New health director of the Wentworth Military Academy at Lexington is **Ben H. Brasher**, M.D., Lexington.

The Missouri State Surgical Society was organized in Kansas City on April 1 and the following officers were elected: **Claude J. Hunt**, M.D., Kansas City, president; **J. William Thompson**, M.D., St. Louis, vice president, and **John A. Growdon**, M.D., Kansas City, Secretary-treasurer. It is the plan of the organization to meet at the time of the next Annual Session of the Missouri State Medical Association when constitution and by-laws will be adopted. The organization is open to any general surgeon.

NEW MEMBERS

Allbee, Roger H., M.D., Crystal City. Jefferson County Medical Society.

Allen, David O., M.D., Frisco Building, Joplin. Jasper County Medical Society.

Bahn, Charles, M.D., Cape Girardeau. Cape Girardeau County Medical Society.

Boone, Daniel S., M.D., 5530 North Spruce Street, North Kansas City. Clay County Medical Society.

Bowdish, Palmer R., M.D., Marshall. Saline County Medical Society.

Breece, Grady L., Jr., M.D., Marble Hill. Cape Girardeau County Medical Society.

Brewer, Thomas, M.D., 607 Court Street, Fulton. Callaway County Medical Society.

Bumgarner, Roger W., M.D., 102 North Greenwood, Columbia. Boone County Medical Society.

Clawson, James W., M.D., Medical Arts Building, Springfield. Greene County Medical Society.

Cloyd, Mason D., M.D., 914 North Taylor Avenue, St. Louis. St. Louis Medical Society.

Collins, Mabelle B. S., M.D., 30 Main, Webb City. Jasper County Medical Society.

Dunleavy, James D., M.D., 374 Wirthanan Building, Kansas City. Jackson County Medical Society.

Elliott, Wade E., M.D., 4036 Cambridge Street, Kansas City, Kansas. Clay County Medical Society.

Ernest, Joseph G., M.D., 1603 High School Drive, Brentwood. St. Louis Medical Society.

Ezzo, Joseph A., M.D., 915 North Grand Blvd., St. Louis. St. Louis Medical Society.

Fehlman, Bernard F., Jr., M.D., 306 South Euclid Avenue, St. Louis. St. Louis Medical Society.

Frazier, Robert L., M.D., East Prairie. Semo Counties Medical Society.

Freund, H. G., M.D., State Hospital No. 1, Fulton. Callaway County Medical Society.

Fuchs, George L., Jr., M.D., 80 St. Christopher Street, Columbia. Boone County Medical Society.

Green, Daniel, M.D., 8877 Ladue Road, St. Louis. St. Louis Medical Society.

Hagan, Daniel J., M.D., 3915 Watson Road, St. Louis. St. Louis Medical Society.

Hahn, Andrew L., M.D., Professional Building, Springfield. Greene County Medical Society.

Hampton, Henry E., M.D., 2328 Market Street, St. Louis. St. Louis Medical Society.

Hill, James Eldon, M.D., 607 Court Street, Fulton. Callaway County Medical Society.

Johnson, Thomas L., M.D., 407 Court Street, Fulton. Callaway County Medical Society.

Jones, Victor, M.D., 9073 Wrenwood, Brentwood. St. Louis County Medical Society.

Kepler, Earl C., M.D., State Hospital No. 1, Fulton. Callaway County Medical Society.

Kyger, John E., M.D., 915 North Grand Boulevard, St. Louis. St. Louis Medical Society.

McAlhany, Howard J., M.D., 509 Cherry Street, Springfield. Greene County Medical Society.

McCann, John F., M.D., 16 Hampton Village Plaza, St. Louis. St. Louis Medical Society.

McKee, Oliver A., M.D., 109 North Taylor Avenue, Kirkwood. St. Louis County Medical Society.

Moseley, F. Thomas, M.D., 1636 South Glenstone, Springfield. Greene County Medical Society.

Nickel, James F., M.D., 4952 Maryland Avenue, St. Louis. St. Louis Medical Society.

Poff, Joseph H., M.D., 1115 Ward Avenue, Caruthersville. Pemiscot County Medical Society.

Roden, J. S., M.D., 3003 West Boulevard, South, Columbia. Boone County Medical Society.

Ruff, Troy E., M.D., Kneibert Clinic, Poplar Bluff. Butler-Ripley-Wayne Counties Medical Society.

Schwimmer, Benjamin, M.D., 940 Beaumont Medical Building, St. Louis. St. Louis Medical Society.

Seeley, James J., M.D., 915 North Grand Boulevard, St. Louis. St. Louis Medical Society.

Shanahan, Eugene R., M.D., 1115 Ward Avenue, Caruthersville. Pemiscot County Medical Society.

Trugly, Edith S., M.D., 1420 Grattan Street, St. Louis. St. Louis Medical Society.

Whittico, James M., M.D., 916 North Taylor Avenue, St. Louis. St. Louis Medical Society.

DEATHS

Parker, John Z., M.D., Pattonsburg, a graduate of the University of Kansas School of Medicine, 1904; honor member of the Grand River Medical Society; aged 78; died March 28.

Hux, William J., M.D., Essex, a graduate of Vanderbilt University School of Medicine, 1912; honor member of the Semo County Medical Society; aged 68; died April 22.

Maness, Charles E., M.D., Neosho, a graduate of St. Louis University School of Medicine, 1917; member of the Ozarks Medical Society; aged 66; died May 2.

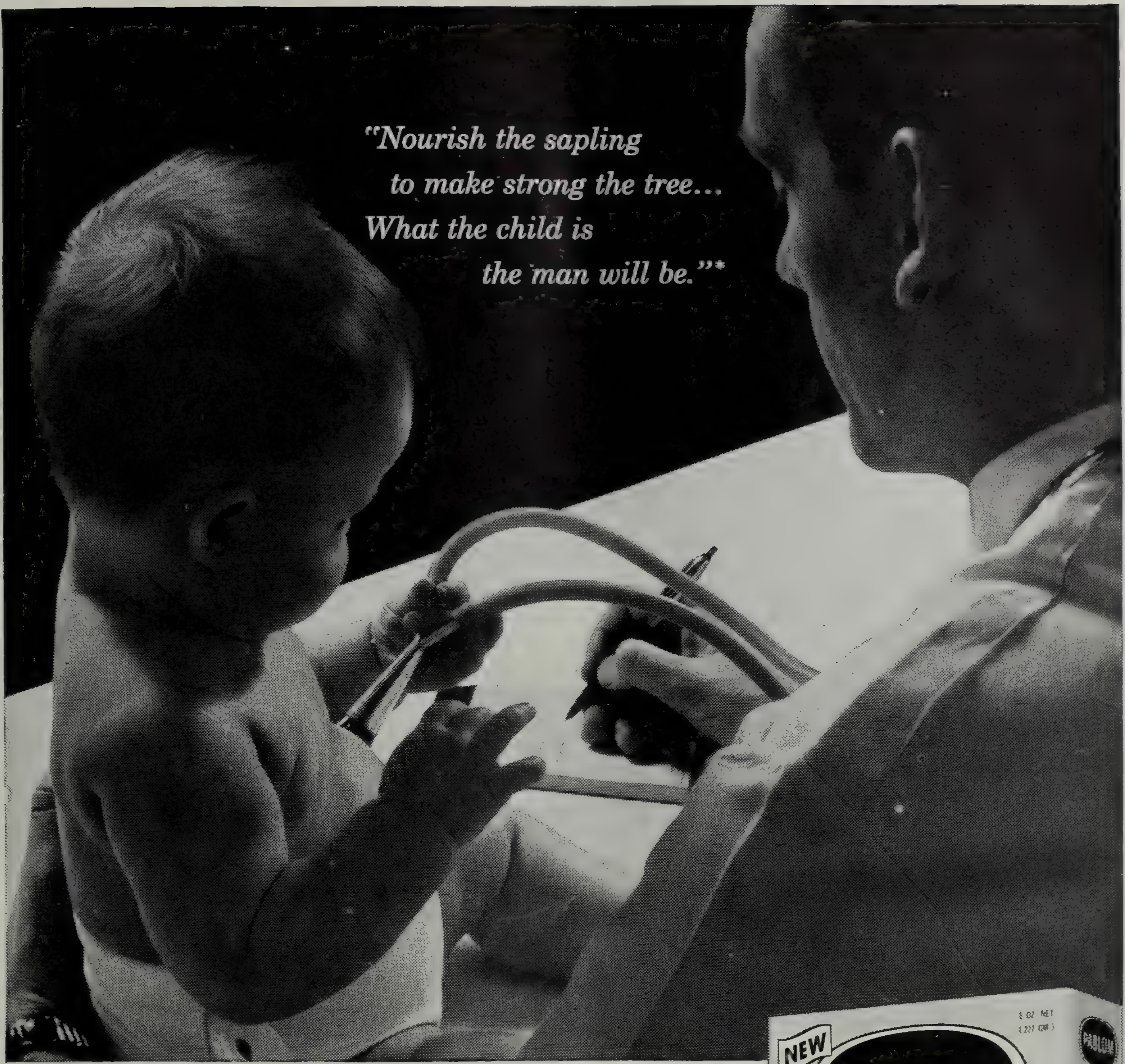
Moruzi, Alexandre D., M.D., Kansas City, a graduate of the University of Paris Faculty of Medicine, 1929; member of the Jackson County Medical Society; aged 57; died May 6.

Alford, Leland B., M.D., St. Louis, a graduate of Washington University School of Medicine, 1912; member of the St. Louis Medical Society; aged 72; died May 15.

Timerman, Arthur R., M.D., Ocala, Florida, a graduate of the Louisville Medical College, 1894; honor member of the Buchanan County Medical Society; aged 85; died May 18.

Schlossstein, Adolph G., M.D., St. Louis, a graduate of the Missouri Medical College, 1894; honor member of St. Louis Medical Society; aged 85; died May 23.

Hager, Victor K., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1940; member of the St. Louis Medical Society; aged 51; died May 30.


"Nourish the sapling
to make strong the tree...
What the child is
the man will be."*

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Musings of the Field Secretary

Representatives of the Bureau of Health Education of the AMA contributed much to the success of the school health education workshops held at four Missouri State Colleges during June. Wallace Wesley, Hs.D, attended workshops at Kirksville and Maryville; William Bolton, M.D., at Springfield; and D. A. Dukelow, M.D., at Cape Girardeau. They were featured speakers on general sessions of the workshops as well as consultants for the group discussion session. The workshops this year had higher percentages of classroom teachers in attendance, and this would seem to spell progress; however, more school administrators and doctors were needed.

Thirty-three medical students have started their senior year at Missouri University which began June 11, 1957, and runs to May 27, 1958. Ten of the thirty-three have elected a preceptorship of six weeks duration as a part of their senior year training. One preceptee spent the period from June 11 to July 23 with Dr. A. E. Spelman of Smithville, Chairman of the Rural Health Committee of the Missouri State Medical Association. The period from July 24 to September has been selected by two more of the ten senior medical students for preceptorship training.

The Second Annual Pre-Medical-Pre-Dental Day for high school seniors and college students was held at Central College, Fayette, Saturday, April 27. This affair was arranged by the College Chapter of Alpha Epsilon Delta—National Pre-Medical Fraternity—under the able directorship of Professor Lester C. Shell, Central College Pre-Medical Advisor and faculty sponsor of A.E.D. Fraternity. The two main purposes of this session were: (1) to acquaint high school seniors and present Central students with the splendid opportunities today in medicine and dentistry and allied fields, and (2) to present what the College has to offer in basic training for these specialized fields.

Physicians who participated in the day's informative presentation included: Drs. W. A. Bloom and W. J. Shaw, Sr., of Fayette; Dr. Lynn M. Garner, Missouri Division of Health, Jefferson City; Dr. Joe W. Ward, Lexington; Dr. John R. McDaniel, St. Joseph; Dr. Frank R. Bradley, Director of Barnes Hospital, St. Louis; and Dr. Leroy R. Boling, D.D.S., Dean, School of Dentistry, Washington University, St. Louis. The attendance at this signal affair numbered 125.

Three topnotch medical meetings scheduled for early fall in Missouri are: September 30 to October 3, the Kansas City Southwest Clinical Society Fall Conference, Municipal Auditorium, Kansas City; the Fourth Annual Southeast Missouri Cancer Conference, Marquette Hotel, Cape Girardeau, Sunday, October 13; the Missouri Academy of General Practice Annual Meeting, October 30 and 31, Governor Hotel, Jefferson City. Watch for additional information on these value-loaded events.

Missouri Medical Meetings

Missouri State Medical Association Annual Session, St. Louis, April 13-16, 1958.
Kansas City Southwest Clinical Society, Conference, Sept. 30-Oct. 3, 1957, Kansas City.
Missouri Academy of General Practice, Annual Meeting, Governor Hotel, Jefferson City, October 30-31, 1957.
St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Society—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—third Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—fourth Tuesday of each month except June, July and August, at auditorium of General Hospital No. 1.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets only on call.
Johnson County Medical Society—meets only on call.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark-Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Webster County Medical Society—meets only on call.
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

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The Council

The Council met at the Kentwood Arms Hotel, Springfield, on June 15-16, 1957, with R. O. Muether, M.D., St. Louis, Chairman, presiding. Those present were: Drs. Muether, Donald M. Dowell, Chillicothe; B. L. Murphy, Hannibal; Joseph C. Creech, Troy; Byron M. Stuart, Boonville; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; Walter W. Tillman, Springfield; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Walter S. Sewell, Springfield; W. F. Francka, Hannibal; E. Royse Bohrer, Jefferson City; Joseph L. Fisher, St. Joseph; Carl F. Vohs, St. Louis; Joseph C. Peden, St. Louis; F. L. Feierabend, Kansas City; Durward G. Hall, Springfield; H. E. Petersen, St. Joseph; H. M. Hardwicke, Jefferson City; Messrs. James Foristel, Washington, D. C.; John W. Noble, Kennett; Dave Galbraith, Springfield; Lemoine Skinner, Jordon Singleton, Ray McIntyre, T. R. O'Brien and Miss Helen Penn, St. Louis.

Minutes

Minutes of the meetings of March 31, April 1 and April 3 were approved as mailed to members of the Council.

M.U. Award

The presentation of a plaque and a savings bond to the outstanding senior student of the University of Missouri Medical School was reported, Dr. Bohrer representing the Association for the presentation.

AAPS Essay

It was reported that the AAPS had requested sponsorship of an essay contest for them and that this had been referred to the Woman's Auxiliary but that they did not wish to enter the essay contest field again.

MAGP

It was reported that space and some secretarial service was now being furnished the Missouri Academy of General Practice, the Academy paying the Association for this.

Treasurer's Report

The Treasurer's Report was presented, together with information on the possibility of using the Mercantile Trust Company as an Investment Managing Agency since government bonds which the Association has held are no longer available. On motion of Dr. Sewell, seconded by Dr. Dowell, it was voted that the Treasurer and Executive Secretary be instructed to set up an Investment Managing Agency with the Mercantile Trust Company.

Field Secretary's Report

Mr. McIntyre reported several component society meetings at which lawyers had met with the physicians and several that had had programs on economic subjects. He said there had been approximately twenty-five society meetings since the Annual Session, that he had attended about half of them. He reported on other special meetings and gave dates of future meetings, including cancer conferences, school workshops and scientific sessions. He reported on the placement service, pointing out that many small towns still wish to have physicians. He said that new hospitals were being considered in Aurora, Carrolltown, Fredericktown, Butler, Neosho, Doniphan and Mound City. A contract for a county hospital has been let in Houston, a hospital opened in Crystal City on May 15 and one will open in Albany in September. He said that at present one preceptee from the University of Missouri is with Dr. A. E. Spelman at Smithville. He also discussed future possibilities of this program and said he would talk with each Councilor on returned questionnaires on members offering to act as preceptors.

Division of Health

Dr. Hardwicke discussed the work of the Division of Health and its new organizational set-up, stating that the Division must justify itself by the service it renders. He discussed infant mortality, possible screening surveys, poliomyelitis immunization and school immunization programs, tuberculosis control, nursing home inspection, hospital licensing, giving statistics in many instances. He stressed the need for community interest and responsibility in many fields rather than state and federal.

Salk Vaccine

The following excerpts from the report of the Committee on Infant and Child Care was presented:

"In view of the emergency situation that now exists, in that the remaining federal funds allocated to Missouri for the purchase of Salk vaccine must be used within a limited period of time or be forfeited, the Committee submits the following report and recommendation to the Council.

"While progress in the total poliomyelitis immunization program, utilizing both private commercial vaccine and the federally purchased supplies, can be considered substantial, Missouri is still below the immunization level deemed a satisfactory objective. There is a great continuing need for emphasis by physicians on the immunization program—both in the administration of vaccine on a private basis, and on an emergency basis during the next several months, looking toward complete utilization of all supplies of federally purchased vaccine still available to the state.

"In the approximately two years since federal funds became available for the purchase of Salk vaccine, Missouri has used only about 50 per cent of its allocation. The time available for use of the remaining allocation is about six to eight months, depending upon delivery schedules. It is the hope of the Committee that every effort will be made to use this vaccine within this time. This need for speed should be taken into account by the various component medical societies in considering the immunization program to be followed in their communities. In every case there should be no room for doubt in the public mind that the medical profession has made every effort to assure that immunization has been available to everyone provided for in the federal law, and the state's allotment of vaccine has been utilized to the fullest extent. It should be emphasized that this final effort to utilize the federally purchased vaccine is an emergency situation, and barring unforeseen events, it is the opinion of representatives of the Missouri Division of Health, the United States Public Health Service, and of the Committee that as far as government programs are concerned, poliomyelitis vaccination will take its normal place in the usual private practice of medicine after completion of this campaign. Thus the Committee recommends that:

RECOMMENDATION OF COMMITTEE

"1. The Missouri State Medical Association reaffirm its basic position that vaccination against poliomyelitis should be a part of the patient's overall personal immunization program, and that physicians should include polio vaccination with other immunization procedures on a year-round basis, except where medically contraindicated as in the event of a household contact with a current polio case.

"2. The Missouri State Medical Association and its component societies cooperate with the Missouri Division of Health to the fullest extent possible in the current 1957 campaign for immunization with Salk vaccine.

"3. In cooperation between the county medical societies and the Division of Health, an effort be made to again urge everyone to obtain immunization against polio in a physician's office on an individual basis, with such immunization offered both through use of federally purchased vaccine for persons under 20 and pregnant women with an optional small and reasonable charge for administration only, and through the use of commercial vaccine at the physician's usual charge.

"4. In areas where No. 3 does not produce the desired results, each county medical society should work with the Division of Health to develop a program for immunization utilizing the available federally purchased vaccine, either

"(a) By setting specific days and times for physicians in the community to hold special clinic hours in their own offices for the purpose of giving immunizations without charge to all those eligible who wish to come, with the cooperation of the Division of Health in providing suitable publicity, and in obtaining volunteers for the necessary clercial work involved.

"(b) Or, if this is not feasible, by the physicians in the community holding centralized public clinics of their own, without charge, for all those eligible, again with the cooperation of the Division of Health for publicity and clerical help.

"(c) Or, if neither of these is feasible, by calling on the Division of Health to set up its own clinic in the community, manned with its own personnel.

"(d) Or, by any combination of such methods.

" Dependent on the supplies of federally purchased vaccine available, the program decided upon should, of course, include provision for all three rounds of immunizations in the Salk series."

On motion of Dr. Francka, seconded by Dr. Dowell, the report was accepted.

Civil Defense

The report of the Committee on Civil Defense was presented which included a report on poor handling of certain phases of the tornado disaster recently in Kansas City, and of more satisfactory handling in Desloge. The following actions of the Committee were presented:

1. That the Division of Health of Missouri cause to be made a comprehensive survey and study of the health and medical aspects of the Kansas City tornado catastrophe so that such information may be helpful in handling such similar future problems and in suggesting better basic local planning for possible future catastrophes.

On motion, this was voted approval by the Council.

2. That the Missouri State Civil Defense law be amended to include natural disasters and this action be recommended to proper authorities through proper channels.

After discussion, on motion, the Council voted that action on this be deferred until the results of the survey would be known.

3. That the Missouri Division of Health see that the Municipal League of Missouri is approached for time on their annual program where selected personnel may discuss civil defense and natural disasters.

On motion, this was voted approval by the Council.

4. Recommend that a top level civil defense speaker be included on the MSMA Annual Meeting program for 1958.

On motion, the Council referred this to the Committee on Scientific and Postgraduate Work.

A letter from the Division of Health stating that it was felt that the responsibility it was asked to take in organizing medical-health civil defense should also include natural disasters as well as enemy inspired disaster and asking that a committee work with the Division in this organization was read. On motion of Dr. Tillman, it was voted to ask the Association's Committee on Civil Defense to act in this capacity.

Legislation

A tabulation of the final results of the Missouri General Assembly was presented, giving legislation passed and that which was considered but not passed.

Chiropody

It was reported that further study by the chairman of the Committee on Fractures caused him to favor the action of the Council in not approving the Committee's report that favored chiropody legislation. It was said that a representative of the chiropodists wished to talk to the Council and this would be arranged at a later meeting of the Council.

P.L. 880

A letter from the Council of the St. Louis Medical Society was read which criticized the Association for not publicizing the action of the House of Delegates which recommended opposition to implementing legislation on P.L. 880. Also presented was a digest of the law with explanations of it. On motion, discussion and action were deferred until the Sunday session to give each Councilor time to study the digest.

Cancer

It was reported that the Committees on Cancer and on Laboratory Medicine had met to explore the recommendation of the Committee on Cancer that a statewide cytological service for the study of cervical smears be established. The Committee on Laboratory Medicine will make recommendations to the Committee on Cancer at a later joint meeting of the two committees.

Medicare

A letter was presented which stated that the Department of the Army requested an extension of the present contract to September 1958. At that time the entire contract would be renegotiated. It was stated further that the law has been in effect only since December 7, 1956, and, as a result, insufficient knowledge is available at present to require a renegotiation of the entire contract. It was pointed out that the action of the House of Delegates was to "explore possibility of a no fee schedule" contract. After discussion, including information presented by Mr. Foristel, on motion of Dr. Tillman, seconded by Dr. Bull, it was voted that the requested extension be granted and that the possibility of having a "no fixed fee schedule" be explored when the time for renegotiating comes up in 1958.

VA Contract

Request for renewal of the contract with the Veterans Administration for home town care was presented and discussion brought out that some members of the Association might prefer that this contract not be renewed because of the present fee schedule. On motion of Dr. Perry, it was voted that the contract be renewed and that a letter be written the VA requesting that the matter be reopened after the Committee on Medical Economics had had opportunity to study it.

Conference on Schools

The biennial National Conference on Physicians and Schools at Highland Park, Ill., was announced and on motion of Dr. Sewell, seconded by Dr. Murphy, it was voted that the chairman and one other member of the Committee on Infant and Child Care be sent to the conference.

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Doctor Draft

The action of Congress on the Doctor Draft law, making it now an extension of Selective Service and lowering the age at which a physician may be called into service was explained by Mr. Foristel.

P.L. 880

In discussion of P.L. 880 and the prepared statement given Councilors, it was brought out that no legislation could be considered prior to a possible called session early next year; that actions of the House of Delegates had not always shown the feeling of the membership; that vendor systems had been used for some time by about one-third of the states and that probably under P.L. 880 many other states would use it; that the membership should be fully informed and have opportunity to express opinion. On motion of Dr. Tillman, seconded by Dr. Murphy, it was voted that material, possibly with questionnaire, should go to the membership, the timing probably for the fall since members would be more likely to read it then, and there would be more opportunity for discussion at county society meetings.

AMA

Dr. Feierabend reported on the June session of the American Medical Association and it was stated that a report will appear in the August issue of MISSOURI MEDICINE. He recommended that a committee be appointed to work with the AMA delegates that the Missouri delegates would have opportunity to become better acquainted with other delegates and show hospitality to them. On motion of Dr. Francka it was voted that the Chairman of the Council appoint such a committee. Dr. Feierabend recommended that a special assessment for monies for AMEF be levied. On motion of Dr. Francka, it was voted that this be referred to the Committee on AMEF.

Annual Session

A report of Dr. Kiene, chairman of the 1957 program committee, together with letter he had requested from his committee members, was discussed. It was the consensus of the Council that in spite of the decreasing attendance at the last session and at the scientific program, the scientific phase should be continued. Discussion brought out the desirability of having the entire meeting in one place; more time given for organization work, especially reference committees, so that they do not overlap the scientific portion; not so many well known names needed; use of more refresher courses and panels; scientific sessions should start at a later hour.

Thanks to Dr. and Mrs. Sewell

Thanks were expressed to Dr. and Mrs. Sewell for the dinner and party to which the Councilors and their wives were invited on Saturday evening, and Dr. Tillman for his hospitality.

R. O. MUETHER, M.D., *Chairman*

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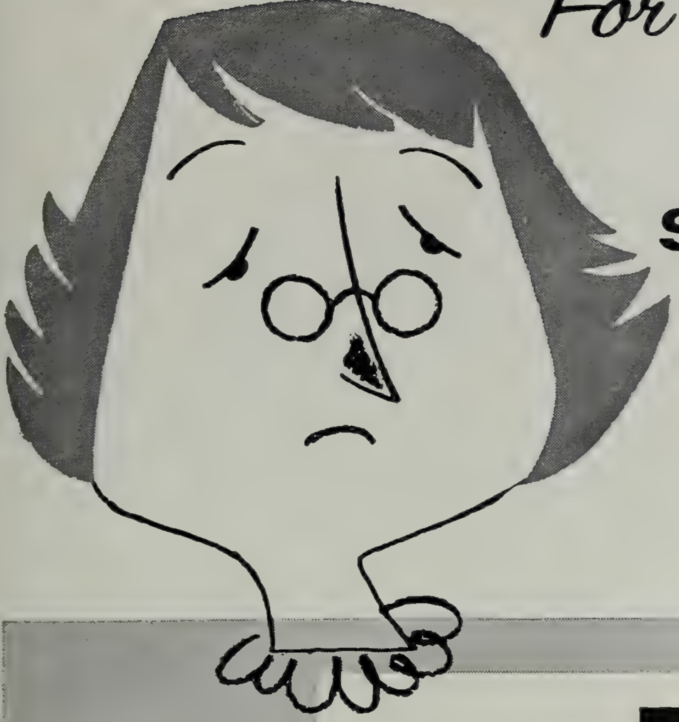

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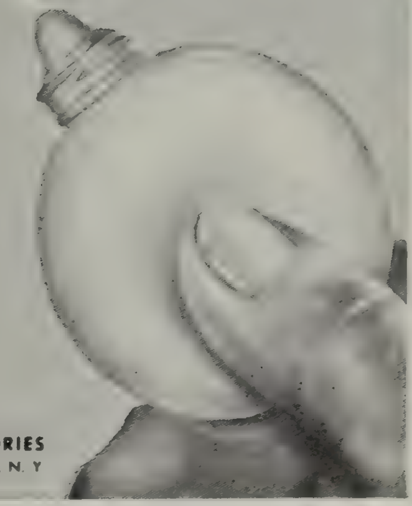

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Clay County Medical Society

The Clay County Medical Society met in regular session at St. Luke's Episcopal Church in Excelsior Springs on Tuesday, April 30, 1957.

Dr. Frank Smith of the Kansas State Board of Health spoke to members and the Auxiliary. He discussed the mental hospital program in Kansas. Kansas has pioneered in offering a progressive, advanced treatment program for mental illness to its people. Dr. Smith emphasized that local community support was essential to the success of such a program. He showed that a good treatment program will keep the patient population in mental hospitals down by returning a high percentage of patients to the community.

A discussion of the possibility of Clay County being included in a coordinated program for the care of medical indigent in the greater Kansas City area followed the scientific program. It was suggested that this matter be taken up with the Clay County Court.

It was unanimously voted that a letter of commendation be sent to Dr. Murray Grant for his work in organizing and developing a well functioning health department in Clay County. Dr. Grant has resigned as director of the Clay County Health Department to accept a position as director of a health department in the Maryland county which adjoins Washington, D. C.

Sidney O. Schroeder, M.D., *Secretary*

Grand River Medical Society

The Grand River Medical Society met May 9, 1957, at the Strand Hotel, in Chillicothe. There were about fifty present including members, Auxiliary members and guests. After dinner the guest was introduced and the Auxiliary retired to its meeting.

Dinner preceded the program.

The scientific program was presented by Mr. Floyd Wehrenberg, of Professional Management, Waterloo, Iowa, who discussed "The Business Side of the Doctor's Practice." This was an interesting and instructive paper.

It was interesting to note that all five past presidents of the Society were present.

Field Secretary Ray McIntyre gave an interesting talk on statistics as to the attendance at the recent State Medical Association meeting. We were pleased to note that our Society had an excellent attendance.

The recent deaths of Dr. Frank Z. Parker, Pattonsburg, and Dr. C. J. Sellers, Mount Moriah, were reported. A motion was made by Dr. C. M. Grace that our Society write a letter of condolence and sympathy to their families. It was seconded by Dr. Howard Carter and carried by unanimous vote.

The next meeting being the annual golf tournament, a motion was made, seconded and carried by unanimous vote that the druggists be invited.

It was moved, seconded and carried by unanimous vote that a plaque be presented to all past presidents of our Society. The President appointed a committee, Dr. Robert W. Smith, Dr. Ralph W. Bohnsack and Dr. David M. Witten, to handle this matter.

It was moved, seconded and carried by unanimous vote that the program committee get out a year book.

Minutes of the last meeting were read and approved. There being no further business the Society adjourned.

Meeting of June 13

The Grand River Medical Society met June 13 at the Chillicothe Country Club. There were thirty golfers at the tournament including seventeen doctors, three women and a number of retail druggists and detail men. The Calloway Handicap system of scoring was used, and this successfully prevented Dr. Clark of Trenton from winning first prize. The men's prizes were: first, Dr. Donald Dowell; second, Joe Roland; and third, Lou French. An additional prize was given for low putts, and this was won by Hugh Carlin, druggist from Chillicothe who also furnished the trophy. The ladies' prizes were won by Helen Daley and Marty Vandiver. There was one table of bridge, and a prize was presented to the winner, Mrs. Beck, of St. Joseph. There were five guest golfers from St. Joseph.

There were forty-six present at the evening dinner which was held at the Country Club and served by the management of the Strand Hotel. An enjoyable time was had by all. After the dinner Mrs. Bohnsack favored the group with some excellent piano music with the members and guests joining in group singing.

There was no business transacted, but all were reminded of the coming Fall Clinical Conference in Kansas City.

E. A. Duffy, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

BERNARD L. MURPHY, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

A dinner meeting of the Chariton-Macon-Monroe-Randolph County Medical Society was held at the

Woodland Hospital in Moberly, Tuesday evening, May 9.

The scientific program was given by Dr. Alfred K. Baur, superintendent of the State Hospital at Fulton. Dr. Baur discussed "Newer Chemistry of Psychiatry." He stressed the dangers of the indiscriminate use of the "tranquilizer" group of drugs which is now receiving so much attention. Dr. Baur emphasized in his discussion that, in his opinion, the number one health problem in this country today is that of mental health.

During the business session, the Society endorsed the program of the state Division of Health in its work with the mobile chest x-ray unit.

Doctors present were Dr. F. A. Barnett, Paris; Drs. D. E. Eggleston, James E. Campbell and Howard S. Miller, Macon; Dr. Daniel D. Stuart, Brunswick; Dr. Florian L. Harms, Salisbury; Dr. P. V. Dreyer, Huntsville; and Drs. W. D. Chute, C. C. Cohrs, J. W. Fleming, T. S. Fleming, L. E. Huber, Robert Hasson, C. C. Smith, A. P. Rowlette and Robert H. Young, Moberly.

ROBERT H. YOUNG, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Franklin-Gasconade-Warren County Medical Society

The regular monthly luncheon meeting of the Franklin-Gasconade-Warren County Medical Society was held at the St. Francis Hospital in Washington on Tuesday, May 28.

The scientific program was given by Dr. Ralph K. Earp, St. Louis. Dr. Earp discussed "Scoliosis in Children." His discussion was adequately illustrated with slides.

The speaker was listened to attentively.

Following the scientific presentation, a business meeting of the Society was held during which a number of important matters including polio immunization were discussed.

Mr. Ray McIntyre, Field Secretary of the Missouri State Medical Association, attended this meeting.

PAUL A. BRENNER, M.D., *Secretary*

Lincoln-St. Charles County Medical Society

On Thursday evening, May 16, the Lincoln-St. Charles County Medical Society met at the Atomic Energy Commission plant at Weldon Springs. A tour of the plant was conducted at 5:30, dinner at 6:30, and then a special program at 7:30.

This was a most interesting experience for those doctors who were able to present on this occasion.

PAUL H. ROTHER, M.D., *Secretary*

Meeting of June 20

A dinner meeting of the Lincoln-St. Charles County Medical Society was held at the Southern Air, Wentzville, Thursday evening, June 20.

The evening's festivities began with a social hour followed by a dinner, both of which were compliments of the Pfizer Company.

The scientific program was presented by Sol Sherry, M.D., Head of the Department of Medicine, Jewish Hospital, St. Louis, who spoke on "Clinical Experiences With Orinase in the Treatment of Diabetes."

PAUL H. ROTHER, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Panels were part of the program.

A two-day Spring Clinical Conference was held at the University of Missouri Medical School on May 15 and 16. Approximately eighty physicians, representing all areas of the state, attended. In addition, medical students, house staff, faculty members and allied personnel of the Medical School were in attendance.

The guest faculty included Dr. Irving Wright, Professor of Medicine, Cornell Medical School; Dr. Don Cassels, Professor of Pediatrics, University of Chicago; and Dr. Marc Musser, Professor of Medicine, University of Wisconsin. Along with the guest faculty, members of the University of Missouri Medical School faculty participated in the two-day scientific presentation.

The Clinical Conference stressed various phases of heart disease, and was jointly sponsored by the University of Missouri, the Missouri Academy of General Practice and the Missouri Heart Association.

During the afternoon session on May 15, Dr. B. A. Moranville, II, first year resident in the Department of Medicine in the University Hospital, received the $1,000 Mead Johnson Award for graduate training

Cardiology for the G.P.

(10 hours Category I credit)

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THEME AND DATE

Oct. 3 (1:00 P.M. to 5:00 P.M.) Differential Diagnosis of Heart Murmurs.

Oct. 4 (9:00 A.M. to 4:00 P.M.) Recent Advances in Cardiology.

October 3-4, 1957

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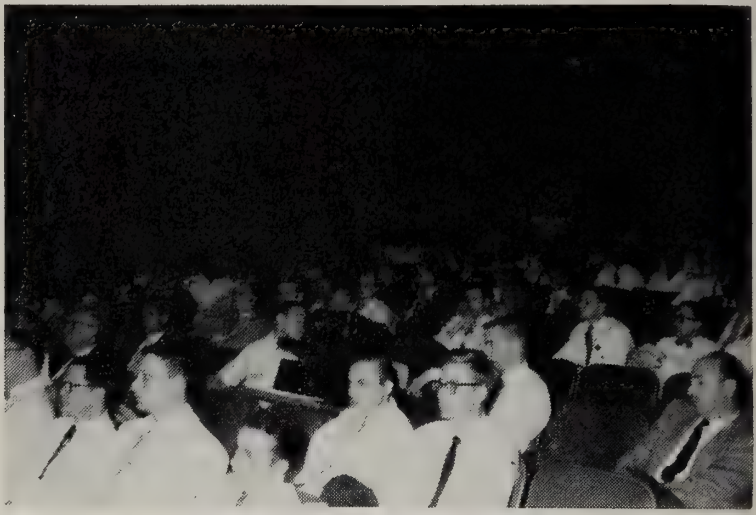
in general practice. Dr. Moranville was one of ten selected by the Mead Johnson Awards Committee of the American Academy of General Practice to receive such an award. These awards are to help defray the expenses of ten physicians taking a residency in general practice. The award was presented by Dr. Charles E. Martin, Ferguson, president of the Missouri Academy of General Practice.



The meeting was well attended.

The annual dinner of the Missouri Heart Association was held on Wednesday, May 15, and was attended by a large number of those who had registered for the Conference.

A maximum of 11 hours of Category I Postgraduate Credit may be taken by Academy members for the two day session.

Audrain County Medical Society

The Audrain County Medical Society held a joint dinner meeting with the Callaway and Montgomery County Medical Societies, Monday night, May 20, 1957, at the Ben Bolt Hotel, Mexico.

After a social hour and an enjoyable steak dinner, the meeting was called to order by the President, Dr. Harry F. O'Brien.

Dr. O'Brien introduced Dr. Arthur Dalton, St. Louis, who gave an illuminative talk on "Fluid and Electrolyte Balance."

The following doctors were present: Drs. Leonard Davis, Kathryn Epple, Ben Jolly, Glen Kallenbach, Ed Wallace, Thomas Dwyer, Lawrence Epple, William Jolly, Harry F. O'Brien, and Drs. Baur and Newman of the State Hospital at Fulton.

As there was no further business, the meeting adjourned at 9:30 p.m.

Meeting of June 17

The Audrain County Medical Society held its monthly dinner meeting at the Ben Bolt Hotel in Mexico, Monday night, June 17, at 7:00 p.m.

After a social hour and an enjoyable steak dinner, the meeting was called to order by the President, Dr. Harry F. O'Brien.

The meeting was then turned over to the guest speakers who were from the St. Louis University School of Medicine. Dr. O'Brien introduced Dr. V. L. Willman, Department of Surgery; Dr. D. W. Bussman, Department of Cardiology, and Dr. C. P. Lynxwiler, Department of Pediatrics.

The subject presented was "Indications for Cardiac Surgery." New methods for determining cardiac pathology were discussed and, following the scientific portion of the program, a color film was shown illustrating several different kinds of open heart surgery.

The following physicians were present: Drs. Leonard Davis, Lawrence K. Epple, William Jolly, Ben Jolly, Thomas Dwyer, Glen Kallenbach, Harold Lankford, Harry F. O'Brien, Ed Wallace and H. J. Ector.

There being no further business, the meeting adjourned.

LAWRENCE K. EPPLE, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

A dinner meeting of the West Central Missouri Medical Society and the doctors' wives was held Thursday evening, May 9, at the Inn Hotel, Butler, Missouri. The evening festivities began with a social hour followed by a bountiful dinner. The scientific program was sponsored by the Missouri Academy of General Practice and the University of Missouri Medical School.

Dr. William Sodeman, from the University of Missouri, spoke on "Common Sense Management of the Acute Cardiac." This was a most interesting discussion and was well received. This Society regrets very much that Dr. Sodeman is leaving our new State Medical School for greener medical school pastures in another state.

Meeting of June 13

A joint meeting of the West Central Missouri Medical Society with the dentists and lawyers of the counties composing the West Central Society was held at the Nevada Country Club on Thursday, June 13. A golf tournament had been scheduled for the afternoon, but unfortunately it had to be called off because of inclement weather. The evening festivities went off as anticipated with an enjoyable social hour followed by dinner and a most interesting program.

Mr. George Shattuck, Kansas City, U. S. narcotic agent, Bureau of Narcotics, Treasury Department, spoke to the group on "Problems in Narcotics Control." This was a most interesting talk on present narcotic problems and measures which are being taken to control the illegal traffic in narcotics. Mr. Shattuck presented a demonstration of the equipment used by addicts and other items of interest collected in narcotics raids.

There were forty-seven in attendance including doctors, lawyers and dentists, and seemingly all were quite impressed and well pleased with the entire occasion. Plans are now under consideration for similar future meetings.

ROBERT L. MAGEE, M.D., *Secretary*

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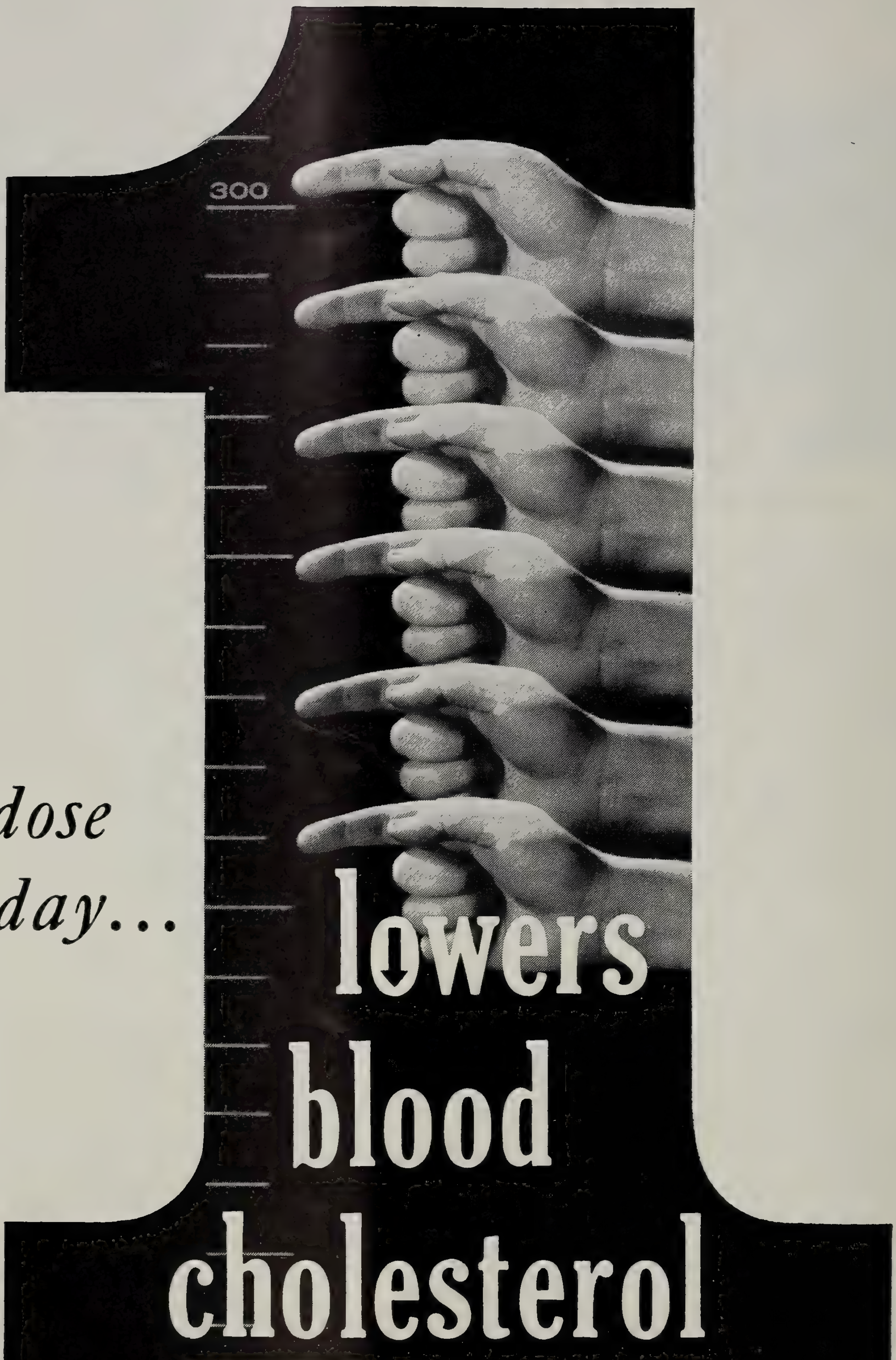
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Henry, Johnson, Lafayette-Ray, Pettis and Saline Joint Meeting

A joint dinner meeting of the Henry, Johnson, Lafayette-Ray, Pettis, and Saline County Medical Societies and the doctors' wives was held at the Skyhaven Inn at Warrensburg on Wednesday evening, June 19.

Dr. Bunting was the speaker.

Discussion continued after the session.

Dinner preceded the program.

Following an enjoyable social hour, those present were treated to a smorgasbord complete from hors d'oeuvres to dessert.

The scientific program, under the auspices of the Missouri Academy of General Practice, was presented by W. P. Bunting, M.D., Kansas City, who spoke on "The Management of Some Common E.N.T. Problems in the Office of the General Practitioner."

In a separate meeting, the ladies were treated to a most interesting program through the courtesy of the Gas Service Company of Warrensburg. This program featured Temp-trol and Rotisserie cooking.

The attendance numbered approximately sixty persons including doctors, wives and guests.

Keith D. Jones, M.D., *Secretary*

Pettis County Medical Society

The Pettis County Medical Society held a special dinner meeting on Tuesday night, May 28, in honor of Dr. Edmund C. Snavely on his completion of 50 years in the practice of medicine.

Dr. Snavely receives plaque.

Approximately forty people including doctors and their wives were present to enjoy this occasion with Dr. and Mrs. Snavely. A social hour preceded dinner and the program. The toastmaster for the evening was Dr. John B. Carlisle. A number of members of the Pettis County Medical Society who have practiced in the vicinity with Dr. Snavely over the years were called upon by the toastmaster to make appropriate remarks. Mr. Ray McIntyre, field secretary of the Missouri State Medical Association, was present and gave a short address. A special plaque, with appropriate inscription, was presented to Dr. Snavely by Dr. A. L. Lowe, president of the Society. The plaque was specially constructed by a member of the Society, Dr. P. V. Siegel, Smithton.

Mrs. Snavely also received recognition. She was highly complimented by the Pettis County Women's Auxiliary for her fine service to the Auxiliary over many years.

Stanley Fisher, M.D., *Secretary*

EIGHTH COUNCILOR DISTRICT

W. W. TILLMAN, JR., SPRINGFIELD, COUNCILOR

The Second Ozark Empire Cancer Conference was held at the Kentwood Arms Hotel, Springfield, on

Friday afternoon and evening, May 24. Sponsors of this Conference were the Greene County Medical Society, the Missouri Division of the American Cancer Society, the Missouri Academy of General Practice, and the Missouri Division of Health. Some ninety-five physicians from Southwest Missouri attended the Conference.

Greene County committee and speakers gather at speakers' table.

The meeting was well attended.

The Field Secretary was not the only photographer present.

The outstanding program was presented by the following faculty members of the Washington University School of Medicine in St. Louis: Lauren V. Ackerman, M.D., Professor of Surgical Pathology and Pathology; Willard M. Allen, M.D., Professor of Obstetrics and Gynecology and Department Head; Eugene M. Bricker, M.D., Associate Professor of Clinical Surgery, and Wendell G. Scott, M.D., Professor of Clinical Radiology.

The afternoon scientific program consisted of papers by each speaker, and the evening scientific program brought the four essayists together on a panel where open forum discussion prevailed.

Between the afternoon and evening programs an enjoyable social hour was held followed by a bountiful dinner.

The Cancer Committee of the Greene County Medical Society deserves much credit for the excellent selection of speakers and subject matter presented at this Second Ozark Empire Cancer Conference.

A maximum of four hours Category II Credit may be taken by AAGP members for this Conference.

G. BRUCE LEMMON, JR., *Secretary*

The Ozarks Medical Society

The Ozarks Medical Society and the doctors' wives held a dinner meeting at the Shadow Rock Hotel in Forsyth on Tuesday evening, May 14. Dr. Jesse M. Threadgill, Forsyth, served as host to approximately twenty doctors and their wives.

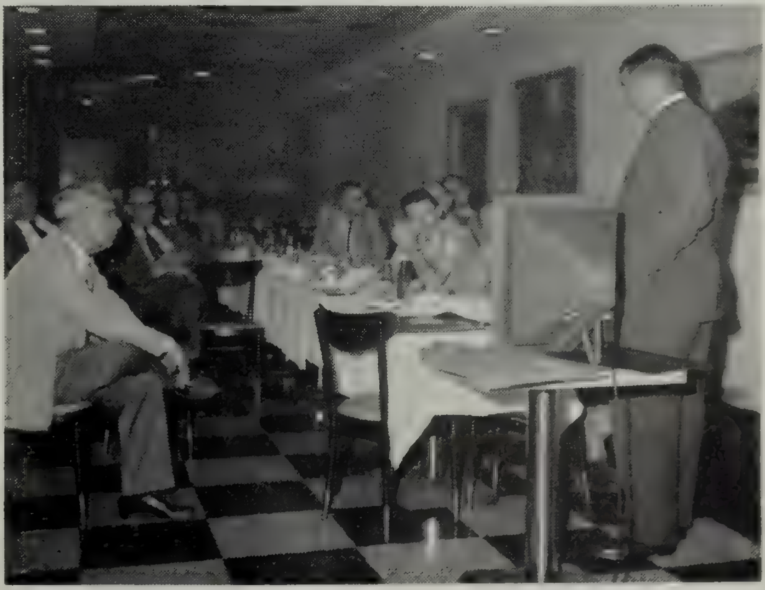
Dr. John Polk, Springfield, presented an interesting discussion on "The Management of Severe Chest Injuries." The many questions and the lively discussion which followed were evidences of the interest and sincerity of the doctors attending.

Meeting of June 11

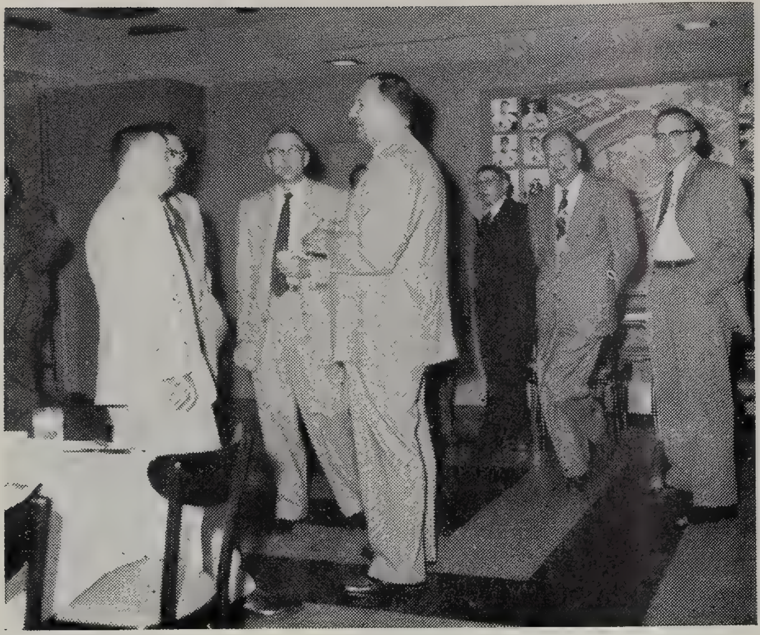
The regular meeting of the Ozarks Medical Society was held in Crane on June 11.

The program for the evening was presented by Dr. Durward G. Hall, Springfield. Dr. Hall, who was a delegate to the AMA Convention in New York, gave a vivid and colorful account of his activities as a delegate and some of the highlights of the June AMA Convention.

Five members were approved by the Society for membership. They were as follows: Dr. Monte C.



The speaker was well received.



The meeting broke up slowly.

Etherton, Monett; Drs. Harry V. Langeluttig and Josef Adriany, State Sanatorium, Mount Vernon; Dr. Charles H. Price, Cassville, and Dr. Frederick B. Brown, Aurora.

The next meeting of the Society will be held Tuesday night, September 10.

A. J. Graves, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri County Medical Society

Dr. Robert Eugene (Gene) Breuer, Newburg, was honored at the May meeting of the Mid-Missouri Medical Society on the occasion of his having completed fifty years of practice as a physician. The meeting was held at the Edwin Long Hotel, Rolla, on May 23.

In addition to members of the society and their wives, many personal friends and patients of Dr. Breuer were present.

Dr. M. Pinson Neal of Columbia was the master of ceremonies. He recalled many incidents in the career and life of the Phelps County physician. Dr. B. J. Bass, president of the Society; Dr. W. L. Allee, Eldon; Dr. J. H. Summers, Lebanon; Dr. E. A. Stricker, St. James; and Mr. Louis H. Breuer, Rolla attorney and brother of Dr. Breuer, made short addresses.

Walter S. Sewell, M.D., President of the Missouri State Medical Association and a nephew of Dr. Breuer, was the guest speaker and told of the "helping hand" given to him through the years by Dr. Breuer.

Dr. Breuer has been interested in the affairs of county and state medical organizations throughout his lifetime. He served as Vice President of the Missouri State Medical Association in 1956. He was an influential member of the House of Delegates for many years, serving as a member of the nominating committee of the house on many occasions.

During the course of his practice, Dr. Breuer delivered more than 3,000 babies and one of them, Mr. Diehl Montgomery, Rolla businessman, delivered a short talk, saying that he was brought into this world 47 years ago by Dr. Breuer.

Dr. M. K. Underwood, Rolla, secretary of the Mid-Missouri society, handled the arrangements for the meeting.

M. K. Underwood, M.D., *Secretary*

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner Wednesday night, May 22, at the K & J Cafe in Willow Springs with the following members and visitors present: Dr. M. L. Fowler, Dr. and Mrs. R. H. Smith, Dr. and Mrs. C. T. Callihan, and Dr. J. M. Wiles, West Plains; Drs. S. W. Connor and A. C. Ames, Mountain Grove; Dr. J. L. Spears, Cabool; Dr. and Mrs. M. B. Perkins, Dr. and Mrs. L. E. Walker, and Dr. and Mrs. H. W. Miller, Willow Springs; Dr. J. R. Tarr, Houston; Dr. and Mrs. D. E. Tiffany, Mrs. Foster and two Sisters from the Memorial Hospital, Mountain View; and Drs. Fred Coller and Dallas Anthony of Springfield.

After dinner the ladies went home with Mrs. Walker for the evening. The doctors and Sisters went to the office of Drs. Miller and Walker for the program. Dr. Fowler, the vice president, called the meeting to order. He then turned it over to the speakers from Springfield, Drs. Coller and Anthony, who described in detail a case of injury in an automobile accident that proved fatal notwithstanding all that could be done.

The minutes of the last meeting were read and approved. An application for membership from Dr. Elders, who has recently located in Houston, was left over to the next meeting.

The meeting was adjourned to meet in Mountain View on June 26.

A. C. Ames, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Mineral Area County Medical Society

Dr. James C. Sisk, a dermatologist from St. Louis, spoke before a meeting of the Mineral Area County Medical Society on Thursday night, May 23, in the Clinic Building, State Hospital, Farmington.

Dr. Sisk presented an informative and practical discussion relating to the "Diagnosis and Management of Common Skin Diseases." An excellent set of slides was effective in illustrating his discussion.

R. A. Huckstep, M.D., *Secretary*

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NEW PRINCIPLES OF MEDICAL ETHICS

The House of Delegates of the American Medical Association adopted the revision of the Principles of Medical Ethics at the New York Session. These were originally submitted at the 1956 session in Chicago. The final version, presented by the Council on Constitution and By-Laws and then amended by reference committee and House discussions in New York, now reads as follows:

Preamble

"These principles are intended to aid physicians individually and collectively in maintaining a high level of ethical conduct. They are not laws but standards by which a physician may determine the propriety of his conduct in his relationship with patients, with colleagues, with members of allied professions, and with the public.

"Section 1. The principle objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

"Section 2. Physicians should strive continually to improve medical knowledge and skill, and should make available to their patients and colleagues the benefits of their professional attainments.

"Section 3. A physician should practice a method of healing founded on a scientific basis; and he should not voluntarily associate professionally with anyone who violates this principle.

"Section 4. The medical profession should safeguard the public and itself against physicians deficient in moral character or professional competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed disciplines. They should expose, without hesitation, illegal or unethical conduct of fellow members of the profession.

"Section 5. A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.

"Section 6. A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care.

"Section 7. In the practice of medicine a physician should limit the source of his professional income to medical services actually rendered by him, or under his supervision, to his patients. His fee should be commensurate with the services rendered and the patient's ability to pay. He should neither pay nor receive a commission for referral of patients. Drugs, remedies or appliances may be dispensed or supplied by the physician provided it is in the best interests of the patient.

"Section 8. A physician should seek consultation upon request; in doubtful or difficult cases; or whenever it appears that the quality of medical service may be enhanced thereby.

"Section 9. A physican may not reveal the confidences entrusted to him in the course of medical attendance, or the deficiencies he may observe in the character of patients, unless he is required to do so by law or unless it becomes necessary in order to protect the welfare of the individual or of the community.

"Section 10. The honored ideals of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society where these responsibilities deserve his interest and participation in activities which have the purpose of improving both the health and the well-being of the individual and the community."

CIVILIAN MEDICARE COSTS

At present, the Medicare program as outlined in Public Law 569, provides for freedom of choice of facilities for dependents of military personnel. That is, the dependent may choose between military or civilian facilities for his medical needs. During the hearings of the House Appropriations Committee, held in late May, Navy witnesses testified that care of dependents in military facilities is substantially less costly than in civilian hospitals.

The AMA Washington letter of June 21, comments further as follows:

AMA CHALLENGES CLAIM OF HIGH CIVILIAN MEDICARE COSTS.

"Claims of military officials to the House Appropriations Committee that care of dependents in military facilities is substantially less costly than in civilian hospitals has been challenged by the American Medical Association in testimony to a Senate Appropriations subcommittee. Witness for the AMA was Dr. Hugh Hussey, a trustee of the association and professor of medicine at Georgetown University.

"The issue came to a head when the House Committee, accepting Navy witnesses' information as accurate, recommended the Defense Department require dependents of military personnel to use military hospitals so long as such facilities are deemed adequate by Defense. This elimination of free choice, Dr. Hussey testified, may bring about a major change in the law and may have 'undesirable consequences.' Accordingly, he urged the Senate committee to write language negating the House Committee recommendation.

"At closed House hearings held in April, Navy witnesses made these claims: Cost of dependent care in civilian hospitals is $50 per day. For the purposes of interagency reimbursements, cost of like care in military facilities has been set at an arbitrary $27.50. As a result of these comparisons, the House Committee, in the interest of economy, decided that more use should be made of military hospitals.

"Following testimony of a Navy witness that medicare in civilian facilities would cost from two to 2½ times more than similar care in military hospitals, the House Appropriations Committee made the following report:

" 'It is the Committee's belief . . . that the free choice element (should) be amended so as not to permit dependents to utilize civilian medical and/or hospital services unless a positive determination is made by appropriate authority that, without augmentation, the military medical hospital facilities and medical personnel in the general area in which the dependents reside are inadequate. . . . First, it will assist in utilizing military medical facilities at the optimum efficient

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READY-TO-USE, NO REFRIGERATION
freely miscible in water, milk, formula,
or drop directly on tongue

HANDY, PLASTIC DROPPER BOTTLE
accurate dosage is easy, one drop per
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SUPPLIED:
10 cc. plastic dropper-type bottle
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level; second, it will continue to provide the needed medical care at lesser cost.'

"In his appearance before the Senate subcommittee on June 19 Dr. Hussey made the following points:

"1. The House committee's recommendation is not warranted, because the cost figures on which it was based are inaccurate and, as admitted by the military, 'there has been insufficient experience' to justify the firm estimates presented by the military.

"2. According to the Bureau of the Budget itself, the $27.50 per day set as the cost in military hospitals is a rough estimate, not taking into account a number of important cost items, including depreciation of buildings and equipment, outpatient care, pay of interns and half the pay of residents, cost of recruitment, training and transportation. All of these or comparable items are used by civilian hospitals in computing dependent care costs.

"3. When these costs are included, the Budget Bureau estimates the cost would be about $36 per day in military hospitals. Even this total fails to include several cost items. 'If a comparison is to be made of civilian and military costs,' Dr. Hussey testified, 'it must be made on the same type of case with the same factors used in computing the basic cost figure.'

"5. The claim advanced by the military that use of civilian facilities by dependents is resulting in overloaded hospitals in some areas cannot be supported; a survey of medical society officials and a check by American Hospital Association disclosed 'not a single instance' of overcrowding, and Maj. Gen. Paul I. Robinson, head of medicare, himself testified he knew of none."

NEW VETERANS ADMINISTRATION REGULATION

A new procedure has been instituted by the Veterans Administration in authorizing outpatient medical treatment over an extended period for certain veterans. The purpose of the procedure is to provide a means for extended authorization (i.e., for more than one month) in order to minimize administrative and paper work duties for all concerned in the handling of cases requiring long term continued treatment.

The cases selected by the Veterans Administration for this procedure will be those with certain chronic disabilities which seem to be more or less stabilized, which will likely require treatment for some time, and on which the need for medical services can be forecast within reasonable limits from past requirements.

This long term treatment arrangement will eliminate the necessity of physicians requesting authorization for medical services on the specified veteran each month. One authorization will be issued for the fiscal year or any part thereof. However, an itemized bill is to be submitted each month on the physician's own letterhead or other identifying paper. It is emphasized that physicians should submit billings promptly for the month in which services are rendered. A clinical report on the veteran's condition will be necessary only every three months.

The Medical Division of the Veterans Administration Regional Office in Kansas City, Missouri, or in St. Louis, Missouri, depending upon the part of the state in which the veteran resides, will communicate with the physician in charge of the selected case and give a more detailed outline of the long term authorization procedure. Physicians treating Veterans Administration patients under this arrangement have already been contacted and given full information on the requirements of the long term program.

WARNING GIVEN ON LINDANE VAPORIZERS

Based on studies and reports from the health departments of St. Louis, the state and other health departments, the Better Business Bureau of St. Louis issued a public statement that vaporizers using lindane crystals are potentially hazardous to public health and should not be used continuously in the home. Reports showed that lindane is highly toxic and that there was extreme danger if human beings or food was exposed to its vapors. They conceded that it was all right to use a vaporizer with lindane as an exterminator or fumigator, that is, to remove all human beings and foodstuffs from the rooms to be fumigated, turn on the vaporizer and let it run for several hours and then thoroughly air out the room before resuming human habitation or replacing food.

The Fourth Annual

SOUTHEAST MISSOURI CANCER CONFERENCE

Marquette Hotel, Cape Girardeau
Sunday, October 13

PROGRAM

Registration. 12:00 noon to 2:00 p. m.

2:00 p. m. to 3:10 p. m. Scientific Program.
"Acute Leukemia and Related Disorders in Infants and Children," Dr. J. P. King, St. Louis.
"Radiation Therapy for the Leukemias and Lymphomas," Dr. David Carroll, Memphis, Tenn.

3:10 p. m. to 3:25 p. m. Coffee Break.

3:25 p. m. to 5:30 p. m. Scientific Program.
"Bone Tumors in Children," Dr. H. R. McCarroll, St. Louis.
"Tumors of the Extremities," Dr. R. J. Booher, New York.

5:30 p. m. to 6:30 p. m. Cocktail Hour.

6:30 p. m. to 7:30 p. m. Dinner.

7:30 p. m. Panel Discussion of Tumor Cases Drawn From the Tumor Service of the St. Francis and Southeast Missouri Hospitals.

COURSE IN CARDIOLOGY

The annual postgraduate course in "Cardiology" sponsored by the Missouri Heart Association will be given in association with Saint Louis University School of Medicine on October 3 and 4, at Holiday Inn, Lind-

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Harmonyl makes rauwolfia more useful in your everyday practice. Two years of clinical evaluation have shown this new alkaloid exhibits significantly fewer and milder side effects than reserpine. Yet, Harmonyl compares to the most potent forms of rauwolfia in effectiveness.

Most significant: Harmonyl causes less mental and physical depression—and far less of the lethargy seen with many rauwolfia preparations.

Patients became more lucid and alert, for example, in a study[1] of chronically ill, agitated senile cases treated with Harmonyl. And these patients were completely free from side effects — although a group on reserpine developed such symptoms as anorexia, headache, bizarre dreams, shakes, nausea.

Harmonyl has also demonstrated its potency and relative freedom from side effects in hypertension. In a study comparing various forms of rauwolfia[2], the investigators reported deserpidine "an affective agent in reducing the blood pressure of the hypertensive patient both in the mild to moderate, as well as the severe form of hypertension." They also noted that side reactions were "less annoying and somewhat less frequent" with this new alkaloid. Other studies confirm that few cases of giddiness, vertigo or sense of detached existence or disturbed sleep are seen with Harmonyl.

Professional literature on this unique rauwolfia derivative is available upon request. Harmonyl is supplied in 0.1-mg., 0.25-mg. and 1-mg. tablets. Abbott

References: 1. Communication to Abbott Laboratories, 1956. 2. Moyer, J. H. et al: Deserpidine for the Treatment of Hypertension. Southern Medical J., 50:499, April, 1957.

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* Trademark for Deserpidine, Abbott

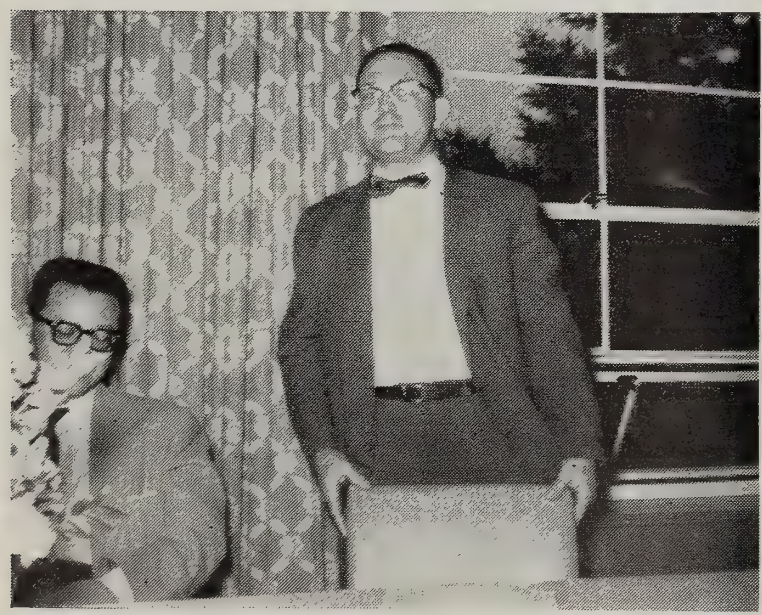
bergh and Long Roads, St. Louis County. The program will run from 1:00 p.m. to 5:00 p.m., on October 3 when recent advances in cardiology will be discussed, and from 9:00 a.m. to 4:00 p.m. on October 4 when the differential diagnosis of murmurs utilizing the Cambridge cardioscope will be presented. For MAGP members, ten hours of category I credit will be offered.

AMERICAN COLLEGE OF SURGEONS

The Southwest Missouri Chapter of the American College of Surgeons met at the Twin Hills Golf and Country Club, Joplin, on May 8, with approximately forty physicians from Southwest Missouri participating in the morning golf match, luncheon, and scientific program in the afternoon and evening.

Among panelists were Dr. Powell (standing) and Dr. Polk (seated at right).

The afternoon program was a panel conducted by Oscar P. Hampton, M.D., University City, on "The Treatment of Traumatic Injuries." Participants on the panel were Drs. James Clawson, E. M. Powell, John L. K. Tsang, John W. Polk and William H. Penninger, Springfield.



Other panelists were Dr. Penninger (standing) and Dr. Tsang (seated).

The evening program, presided over by Virgil E. Jeans, M.D., Joplin, was presented by Dr. Hampton on "Modern Standards in the Treatment of Fractures." Arrangements for the meeting were made by Charles E. Lockhart, M.D., Springfield.

Dinner preceded the evening scientific program.

BOOK REVIEW

Principles of Clinical Electrocardiography. By Mervin J. Goldman, M.D., Assistant Chief of the Medical Service, and Cardiologist, Veterans Administration Hospital, Oakland; Assistant Clinical Professor of Medicine, University of California School of Medicine, San Francisco. Lange Medical Publications, Los Altos, California. 1956. Price $4.50.

This publication is one of many which endeavors to give the reader basic concepts of electrocardiography and their clinical application. However, it differs from its many other competitors in that its presentation is one of the simplest yet found by this reviewer. Not only is it simplified but the entire book is arranged so that each important basic concept will contain, in addition to the brief concise written explanation accompanying drawings, graphic illustrations, or tracings which present the material clearly, concisely and systematically and dispenses with the notion that one need memorize electrocardiographic patterns.

Some of the contents included in its sixteen chapters are as follow: introduction and basic principles of unipolar and bipolar leads; electrophysiology of isolated muscle; definitions of all the configurations such as P wave, PR interval; normal complexes with adequate explanation of all portions of the complexes; effect of various positions and resultant tracings; tracings of infants and children; hypertrophy and block patterns; acute injury patterns; extensive coverage of various arrhythmias, and a chapter on topics such as effects of drugs, electrolytes, trauma, malignancy on the heart.

I believe that this book is a valuable investment for all medical students, interns or other busy practitioners who are desirous of grasping quickly, in writing and simultaneous graphic illustrations, a simplified explanation of basic principles of clinical electrocardiography.

E.R.C.

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Elemental Iron (as ferric ammonium citrate and colloidal iron) (equivalent to 130 mg. ferrous sulfate exsiccated)	38 mg.
Vitamin B_{12} activity concentrate	4 mcg.
Thiamine mononitrate	1.0 mg.
Riboflavin	1.0 mg.
Niacinamide	5 mg.
Pantothenic acid (Panthenol)	1.5 mg.
Pyridoxine hydrochloride	0.5 mg.

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Dosage: 1 or 2 teaspoonfuls t.i.d.

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From the Medical Schools

UNIVERSITY OF MISSOURI

Precommencement Exercises

Precommencement exercises were held at the University of Missouri Medical Center Auditorium on May 24, 1957, for the graduating seniors from the University of Missouri School of Medicine. The program, under the direction of Dr. Roscoe L. Pullen, Dean of the School of Medicine, was attended by members of the faculty of the School of Medicine, family and friends of the graduating class.

Following the invocation, Dean Pullen made announcements concerning the development of the University of Missouri Medical Center.

Dr. Walter L. Bierring, President of Alpha Omega Alpha, and Dr. J. J. Moore, Secretary-Treasurer, gave a brief résumé concerning the installation of the Gamma Chapter of AOA at the University of Missouri following which Dr. E. Royce Bohrer, Secretary of the Missouri State Medical Association, made the presentation of the Missouri State Medical Association award to the top graduate of the Class of 1957, Glennon A. Horner.

The address of the evening was given by Dr. William Bean, Professor and Chairman, Department of Internal Medicine, State University of Iowa, Iowa City, who spoke on "The Care and Feeding of the Intellect."

The Physician's Oath to all the graduating students was administered by Dean Roscoe L. Pullen. An introduction to the University of Missouri Medical School Alumni Association and the Medical School Foundation was made by Dr. Frank Mays, Washington, Mo.

Medical School Foundation Meeting

The members of the University of Missouri Medical School Foundation, Inc., met at the Medical Center on May, 9, 1957, for a business meeting.

Following the Business Meeting, the members of the Foundation heard a discussion by Dr. Mays which was broadcast over a Columbia radio station, in which Dr. Mays discussed the purposes and progress of the Medical School Foundation.

At the Board of Trustees meeting which followed the broadcast the following trustees were reelected to serve another term in office, with Dr. Forgrave elected to fill the vacancy of Dr. Atkins: Drs. F. L. Kneibert, Poplar Bluff; A. R. Dalton, St. Louis; T. E. Ashley, Springfield; H. E. Thomas, Columbia; Peter Potter, San Diego, Calif., and L. P. Forgrave, St. Joseph.

An election of officers for the coming year was held, with the following being elected: President, Dr. Frank Mays, Washington; vice-president, Dr. Dennis R. Elrod, Cape Girardeau; secretary, Dr. Hugh E. Stephenson, Jr., Columbia, and treasurer, Miss Mary Helen Jones, Columbia.

University of Missouri School of Medicine Accreditation

The School of Medicine of the University of Missouri has been fully accredited by the Council on Medical Education of the American Medical Association as a complete four year school and voted full membership in the Association of American Medical Colleges. Dr. Dean F. Smiley, Secretary of the Association has said:

"On the basis of what our liaison committee saw and reported at the time of their visit March 20-23, 1957, we want to congratulate you on the fine teaching program you are developing, the fine staff you are assembling, and the fine Medical Center you are creating at Columbia."

The School of Medicine has been previously accredited by the joint commission on accreditation, and the full term residency training programs have been secured from various accrediting agencies in general surgery, internal medicine, pediatrics, obstetrics and gynecology, pathology and radiology.

Medical Advisory Board Committee Meeting

A meeting of the Medical Advisory Board Committee to the President of the University of Missouri and the Dean of the University of Missouri School of Medicine was held on Sunday, June 16, 1957. Present were: President Elmer Ellis, University of Missouri; Dr. H. W. McHaney, Jefferson City; Dr. Frank Mays, Washington; Dr. T. L. Dwyer, Mexico; Dr. Henry M. Hardwicke, Jefferson City; Dean Roscoe L. Pullen, M.D., University of Missouri School of Medicine; Frank B. Engley, Jr., Ph.D., Assistant Dean, University of Missouri School of Medicine; and Mr. John Perry, Assistant to the Director of the University of Missouri Hospital.

Trips and Talks of the Faculty of the School of Medicine

Dr. Roscoe L. Pullen, Dean, University of Missouri School of Medicine, spoke to members of the Kiwanis Club in Columbia on June 18, using as his subject: "Developments of the University of Missouri Medical Center."

Dr. Gwilym S. Lodwick, professor and chairman, Department of Radiology, attended a meeting of the Association of University Radiologists held at Minneapolis on May 18 and 19. Dr. Lodwick presented a paper on diseases of the aorta entitled: "Correlation of Anatomic and Roentgen Changes in Arteriosclerosis and Syphilis of the Ascending Aorta." Approximately 100 were in attendance. On May 27, Dr. Lodwick spoke to members of the Optimist Club in Columbia on "Developments of the School of Medicine at the University of Missouri." Fifty members of the club attended the meeting.

At a combined meeting of the Missouri State Medical Association's Laboratory Committee and Cancer Committee held in Jefferson City on May 26, Dr. Joseph E. Flynn, professor and chairman, Department of Pathology, discussed the problems in making exfoliative cytological procedures more available. Fifteen committee members attended the meeting.

Dr. M. Pinson Neal, professor, Department of Pathology, served as Master of Ceremonies at a Fifty Year Testimonial Dinner to Dr. Robert Eugene Breuer given by the Mid-Missouri Medical Society on May 23 at Rolla. There were more than eighty in attendance.

On May 6 and 7, Dr. Claude K. Leeper, assistant pro-

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fessor in the Department of Pathology attended the American Trudeau Society of the National Tuberculosis Association meeting in Kansas City. On May 22, Dr. Leeper talked to the Red Cross First Aid Class on "First Aid for Common Medical Emergencies," in Columbia.

From May 26 through June 1, Dr. Clement E. Brooke, assistant professor, Department of Pediatrics, visited in Washington D. C., and Baltimore, Maryland. While in Washington, Dr. Brooke visited Dr. Joseph Bell of the Institute of Microbiology for study of technics of viral epidemiology studies, and Dr. J. E. Seegmiller of the Institute of Arthritis and Metabolic Disorders to discuss metabolic disorders. Also in Washington, Dr. Brooke visited the Childrens Hospital for study of general operation, medical care and resident program. In Baltimore, Dr. Brooke visited the Pediatrics Department of Johns Hopkins University for rounds and discussions.

At the Central Missouri Chapter of the National Association of Social Workers meeting held in the Medical Center on May 18, Dr. Robert L. Jackson, professor and chairman, Department of Pediatrics, acted as moderator for a panel discussion by Dr. Hugh E. Stephenson, Jr., professor and chairman of Surgery, and Dr. Jacob Roden, associate professor and chairman, Department of Obstetrics and Gynecology, on present facilities of the University of Missouri Medical Center and future goals in relation to directorship, administration and policy.

During the American Medical Association meeting held in New York City June 3 through June 6, Dr. Robert L. Jackson lectured in the Section on Diet Conferences on June 6, dealing with Diet in Pediatrics, Dr. Jackson's subject was "Extradietary Nutrition: Prescription of Vitamin Supplements, Iron, Calcium, Copper." Dr. Jackson also acted as moderator for a symposium on June 4.

Dr. Helen M. Waiches, instructor in the Department of Pediatrics, and Dr. Jackson attended the meeting of the American Diabetic Association in New York City on June 1 and 2. Approximately 600 members of the Association were attending the meetings. Dr. Jackson attended the meetings of Nutrition and Public Activity Committee where he discussed a paper presented on "New Hyperglycemic Agents for Treatment of Diabetes."

The Department of Microbiology played host to the meeting of the Eastern Missouri Branch of the Society of American Bacteriologists held in Columbia at the Medical Center on May 18, with fifty in attendance. Mr. Marvin Rogul, graduate assistant, presented a research paper prepared by Drs. Keller and V. J. Cabelli and himself entitled: "Classification and Sensitivities to Chemotherapeutic Agents of Chromogenic Acid-Fast Bacilli."

Dr. Michael H. Ivey, assistant professor, Department of Microbiology, returned to the University on May 27 following completion of the China Medical Board Fellowship where he toured Central American health facilities for a period of two months.

Dr. Hugh E. Stephenson, Jr., professor and chairman, Department of Surgery; Dr. William H. Wade, instructor, and Dr. Raymond Frederick, instructor, both from the Department of Surgery, attended the New York University Postgraduate Medical School, Department of Surgery's Resident Scientific Program in New York City on May 22.

Dr. Stephenson attended the Vascular Surgery Society meetings in New York City on June 1 and the International Society of Angiology on June 2. In addition, he attended meetings of the American College of Chest Physicians and the American Medical Association in New York City.

On June 11, Dr. Stephenson participated in the Staff Training Institute for County Welfare Workers by giving a talk on "Cardiovascular Problems."

A special guest in the Department of Surgery in May was Dr. Morton Pariera, Chief of Surgical Services, St. Louis Jewish Hospital, who spoke to the faculty and students on "Special Aspects of Nutrition in the Surgical Patient."

Dr. Samuel P. W. Black, associate professor of surgery, read the citation for Dr. Glen Spurling when he was awarded Honorary Degree, Doctor of Science, at the University of Missouri Commencement on June 8, 1957.

Dr. W. A. Sodeman, professor and chairman, Department of Medicine, was in Chicago on June 7 to 9 assisting in giving the Board Examinations of the American Board of Internal Medicine.

Dr. John H. Killough, associate professor of medicine, attended the meeting of the Fourth Conference of Cardiovascular Training Grant Program Directors held in Sun Valley, Idaho, from June 7 through 12. There were approximately 100 in attendance, discussing the teaching of cardiovascular disease to medical students.

On June 7, Dr. D. K. Meyer, professor, Department of Physiology and Pharmacology, made the Presidential speech and conducted the initiation of the Sigma Xi Fraternity of the University of Missouri. Approximately 230 University faculty members and students were in attendance.

A meeting of the Mid-West Section of the American Association of Clinical Chemists was held in the University of Missouri Medical Center on May 25 with approximately twenty-five attending. Dr. Luckey, professor and chairman, department of biochemistry, spoke to the group, using as his subject: "Methods Used in Germ-Free Research."

Gifts and Grants

The American Medical Association has awarded two grants to the University of Missouri School of Medicine in the amount of $300 each to be administered by Dr. Robert Keller, Department of Microbiology, who will study the effects of newer antibiotics on pleuro-pneumonia-like organisms, and Dr. J. Franz, Department of Biochemistry, who will make a study of the tryptophan peroxidase enzyme system.

The United States Public Health Service has awarded a grant of $15,000 to Robert Jackson, Department of Pediatrics, for the period July 1, 1957, to June 30, 1958, to be used for the study of arthritis and metabolic diseases.

A grant of $4,166 has been awarded Dr. W. A. Sodeman, Department of Medicine, by the United States Public Health Service. The grant will be used for undergraduate training in psychiatry.

Medical Student Fellowships

Eight summer fellowships have been awarded by the United States Public Health Service to the University of Missouri School of Medicine totaling $600 each to cover a period of twelve weeks.

The Tobacco Industry Research Committee has awarded a summer fellowship to Charles E. Westrup in the amount of $500 for research in the Department of Anatomy.

Mr. David D. Scherr has been awarded a Lederle Laboratories Medical Student Fellowship in the amount of $600 covering a period from June 10, 1957, to August 31, 1957. Mr. Scherr will work in the Department of Microbiology.

Eight summer fellowships were awarded by the National Foundation of Infantile Paralysis in the amount of $600 each.

The Scholarships and Awards Committee of the University of Missouri School of Medicine awarded the Dr. James S. Rollins Award of $50.00 to Mr. Paul C. Todd, a first year student in the School of Medicine.

The Committee also awarded the Medical School Foundation Scholarship of $50.00 to Don M. Long, second year student in the School of Medicine.

SAINT LOUIS UNIVERSITY

Awards

Dr. Alrick B. Hertzman, professor of physiology and director of the department, Saint Louis University School of Medicine, was awarded a distinguished alumni citation at Gustavus Adolphus College at St. Peter, Minnesota, June 1. He received the award at the College's commencement banquet.

Dr. Theodore J. Dubuque, a resident in surgery at the School of Medicine, was awarded first prize for his research paper titled "The Relationship of Peptic Ulcer to Portal Hypertension" in a paper competition sponsored by the St. Louis Surgical Society the latter part of May. As an award winner Dr. Dubuque will be sponsored to present his paper before the American College of Surgeons meeting in Atlantic City in October.

Three Saint Louis University School of Medicine seniors were honored as award winners at an Academic Assembly held prior to commencement June 4. Award winners in the Annual Beaumont Competition included: Dr. Garrett A. Hagen, who won the $500 first prize Borden Undergraduate Research Award for the best original work submitted by a senior medical student at the School of Medicine; Dr. Stephen Genest who received the $300 Beaumont Award for the second best original research work, and Dr. John J. Collins, Jr., who won the annual Roche award, a gold watch, on the basis of his professional excellence and intellectual integrity. Dr. Hagen's research winning paper was titled "The Effect of Reserpine on Peripheral Blood Flow in Hypertensive and Normotensive Human Subjects." Dr. Genest's paper was titled "Ice Water as an Emergency Treatment for Burns." The awards were presented by Dr. Edward A. Doisy, Jr., associate professor of internal medicine and chairman of the Beaumont Competition.

Dr. Pietro Bramante, instructor in physiology, was awarded a fellowship by The Heart Institute of the National Institutes of Health which enable him to attend an eight week workshop at Baylor University College of Medicine at Houston, Texas, June 10 through August 5. The summer workshop was entitled "Classical Physiology With Modern Instrumentation."

Summer research fellowships totaling $9,500 were awarded sixteen School of Medicine freshmen, sophomores and juniors by the School of Medicine's Biochemistry Committee on Grants, United States Public Health Service, Tobacco Research Committee and National Foundation for Infantile Paralysis. Fellowship recipients and their projects include: Max Inman, "Adrenalin Accumulation"; Joseph Garvin, "Ascorbic and Arteriosclerosis"; Charles French, "Preganglionics"; John Brix, "Protein Synthesis in Relation to Cell Division"; Reginald Ho, "Virus and Sera Study"; James Peter, "Insulin Studies"; Michael Pozsgay, "Insulin Studies"; Robert Pierce, "Ventricular Hypertrophy"; Richard Beaudoin, "R. E. System & Shock"; Ronald Hinds, "Dissecting Aneurysm"; Raymond Smith, "Transaminase Detection"; Donald Adams, "Hemo-Dynamics"; Donald Henson, "Microwave Heat and Responses"; Richard Plessala, "B.P. Hyperthermia and Hypoxia"; Peter Tegtmeyer, "B.P. Hyperthermia and Hypoxia" and Thomas Powers, "E.E.G. of Salamander Convulsants."

Grants

A grant of $62,496 from the United States Public Health Service has been awarded to Dr. John P. Wyatt, professor of pathology and associate director of the department; Dr. Joseph P. Wack, senior instructor in pathology, and Dr. Benjamin T. Williams, a third year fellow in pathology at the Saint Louis University School of Medicine. The award is for a five year period of research study on "Movement of Iron in Experimental Pathological States." The research group will attempt to increase the present knowledge of the metabolism of iron in the body through the use of radioactive compounds on experimental animals.

Meetings

The School of Medicine's Department of Surgery played host to The Mid-Century Surgeons Club in a scientific session held at Cardinal Glennon Memorial Hospital May 3 which was attended by outstanding surgeons from various parts of the country. St. Louis University surgeons presented a scientific program at which they discussed various clinical problems involving pediatric and open-heart surgery and general surgical developments. Chairman of the program was Dr. James E. Lewis, Jr., assistant professor of surgery and surgeon-in-chief, Cardinal Glennon Hospital. Participants in the scientific session included: Dr. Walter J. Burdette, professor of clinical surgery and chief of the University's Surgical Service at Veterans Hospital; Dr. Theodore Dubuque, resident in surgery; Dr. C. Rollins Hanlon, director of the department of surgery; Dr. Vallee Willman, research fellow, and Dr. Leo V. Mulligan, associate professor of clinical surgery.

Dr. Willard Bartlett, assistant professor of clinical surgery, presented a scientific exhibit entitled "Relationship of Exophthalmos to Disorders of the Thyroid" before the annual convention of the American Medical Association held in New York June 3 to June 7. He presented a summary of his observations over the last twenty-five years, which have been influential in disproving two traditional beliefs as to the behavior of the eyes in Graves disease.

Election

Dr. Matthew W. Weis, assistant professor of clinical gynecology and obstetrics, was elected president of the Alumni Association of the School of Medicine at a dinner meeting held at the Savoy-Plaza Hotel in New York June 5. The meeting, attended by about 250 graduates of the University's Medical School, was held in connection with the annual meeting of the American Medical Association. Other officers elected were Dr. Henry Poster of New York City and Dr. Louis F. X. Wilhelm of Los Angeles, both vice presidents. Dr. Clement B. Grebel, instructor in internal medicine, was renamed secretary-treasurer of the organization. Greetings to the alumni were extended by Dr. James W. Colbert, Jr., Dean of the School of Medicine.

Graham Award

Dr. Frederick A. Coller, professor and chairman of the department of surgery at the University of Michigan, received the second Graham Award for outstanding contributions to surgery. The award, a bronze medal, was presented to Dr. Coller June 10 at the Medical Center. After the presentation Dr. Coller delivered an address on "Surgery and Science." Funds for the award were set up by associates and former students of the late Dr. Evarts A. Graham at the time of his retirement in 1951 as a tribute to his contributions in surgery and medical education. Dr. Graham, who died last March 4 of lung cancer, was Bixby professor and chairman of the department of surgery at Washington University and surgeon-in-chief of Barnes and Children's Hospital from 1919 until his retirement. He was emeritus Bixby professor of surgery at the time of his death. The medal is awarded every several years to the surgeon who, in the opinion of the selection committee, has made the most significant contributions to his profession. Dr. Allen O. Whipple, professor emeritus of surgery at the College of Physicians and Surgeons of Columbia University, was the first recipient in 1955. Among Dr. Coller's many contributions to surgery are his work on carcinoma of the colon, the fluid and electrolyte balance in surgical patients, metabolic disturbances associated with dehydration and the surgical treatment of abnormalities of the thyroid gland. He also is known for the development of an integrated sectional postgraduate training program in surgery. Members of the selection committee for the award were Dr. Thomas H. Burford, professor of thoracic surgery; Dr. Carl A. Moyer, Bixby professor of surgery and head of the department, and Dr. Henry G. Schwartz, professor of neurosurgery, all of Washington University.

While in St. Louis Dr. Coller also spoke at the School of Medicine's senior award night June 11. His subject was "Beaumont as a Surgeon and His Influence on Surgery of the Stomach."

Grant

Washington University School of Medicine has been awarded a $50,000 grant by the National Institute of Health of the U. S. Public Health Service, Dean Oliver H. Lowry announced recently. The current grant is part of a $500,000 national program undertaken by the Public Health Service. The gift will be used to expand student research at the school and is planned as a five year program, contingent upon continued support by the Public Health Service. "This grant, along with others made throughout the country, was felt necessary because of the rapid advances in medical knowledge and the population growth," according to Dr. Edward W. Dempsey, chairman of the department of anatomy and assistant to the dean at Washington University Medical School. Dr. Dempsey is cochairman of the eight man national committee which selected the grant recipients. The money awarded Washington University will be used for scholarships for students gifted in research, stipends for summer or part time research and for students who drop out of medical school for one or more years to conduct full time research. In addition, a coordinator of student research at the medical school has been appointed, with payment from these funds. Dr. A. Duncan Chiquoine, a former assistant professor of biology at Princeton University, was named to this position, effective July 1. His title is assistant professor of anatomy.

Appointment

Dr. Hugh Chaplin, Jr., assistant professor of medicine and of preventive medicine, was named associate dean at the medical school, effective July 1. He retains his position in the departments of medicine and preventive medicine. In his new post Dr. Chaplin works closely with medical students as advisor and counselor and serves on the admissions committee of the school. A graduate of Princeton University in 1943, Dr. Chaplin received an M.D. degree from Columbia University's College of Physicians and Surgeons, New York, in 1947. He completed intern and residency training in medicine at Massachusetts General Hospital and later was a fellow in hematology at the British Postgraduate Medical School in London. He has been on the Washington University faculty since 1955. Dr. Chaplin has conducted extensive research in hematology, particularly in the field of the preservation of blood in the frozen state, and plans to continue research activities in addition to his new duties.

Alpha Omega Alpha

Sixteen new members were initiated into the Washington University School of Medicine chapter of Alpha Omega Alpha, national medical honor society, at an annual banquet June 6 at the Medical Center. Dr. H. Mitchell Perry, instructor in medicine, spoke at the banquet on "Some Aspects of Medicine in Africa." Guido Guidotti, AOA president and senior in the Medical School, presided. Senior medical students initiated included: Donald C. Abele, Arthur Berken, John W. Grayson, Thomas A Heckel, Richard E. Lauritzen, James B. McClenahan, Alexander Monto, Jewell L. Osterholm, Jerome C. Robinson, Jack T. Stewart, Robert D. Utiger and James Wittmer. Junior class initiates were Bryce L. Munger and Jerome L. Silverman. Dr. Carl E. Lischer, assistant professor of clinical surgery, and Dr. Morton D. Pareira, assistant professor of surgery, were initiated as alumni members of the society. Alpha Omega Alpha recognizes outstanding scholarship and leadership in medicine and related fields. The Washington University chapter is the seventh oldest of the society, dating from 1905.

On May 23 Dr. Thomas E. Brittingham, instructor and U. S. Public Health Service fellow in medicine at Washington University, gave the fifth annual lecture sponsored by Alpha Omega Alpha at the Medical Center. His subject was "Immunology of Leukocytes."

Gerontology Congress

Ten Washington University faculty members participated in the Fourth International Gerontological Con-

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gress which was held July 14 to 19 in Merano, Italy. They also attended the International Symposium on Medical-Social Aspects of Senile Nervous Disease in Venice July 20-21. Participants included: Dr. E. V. Cowdry, director of the Wernse Laboratory of Cancer Research at Washington University School of Medicine; Dr. John Esben Kirk, associate professor of medicine and director of research in the division of gerontology; Dr. William B. Kountz, assistant professor of clinical medicine; Dr. Ivan N. Mensh, professor of medical psychology; Dr. Philip G. Ackermann, research associate in gerontology; Drs. Martin and Ruth Silberberg, assistant professors of pathology. Others were: Dr. Willis H. Reals, professor of adult education; Dr. Marion E. Bunch, professor of psychology; and Dr. Philip H. Dubois, professor of psychology. Dr. Cowdry had served as chairman of the American Committee of cooperation which selected the papers from this continent to be presented at the Congress. Dr. Kountz was treasurer of this group.

Resignation

Dr. Martin D. Kamen, associate professor of radiochemistry at Washington University School of Medicine, has resigned to become professor of biochemistry at Brandeis University, Waltham, Mass., effective Sept. 1. Dr. Kamen, who joined the faculty here in 1945, is internationally known for his work in helping isolate Carbon 14. That work was done in 1940 at the University of California at Berkeley. Last year Dr. Kamen made a six month trip to Europe and Asia during which he lectured and did research at the Nobel Institute in Sweden and at Cambridge University, in England.

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TUBERCULOSIS ABSTRACT

FOODS FOR THE UPPER AGE GROUP AND NUTRITIONAL IMPLICATIONS

Information about foods eaten by older people, in relation to their nutritional status, has been coming recently from regional research conducted cooperatively by Western and North Central groups of Experiment Stations and the Human Nutrition Research Branch of the Agricultural Research Service. Studies have been published giving information on people in California, Iowa, Michigan, Missouri, Nebraska, South Dakota and Wisconsin. The Public Health Service and state and local health agencies cooperated actively in the California studies.

The people studied were "well" rather than "sick" people; they ranged in age from 30 to over 90 years; and their food intakes, except for one group, represent those of people managing their own affairs and buying foods and services. Their choices were undoubtedly influenced by levels of income, intelligence, education, experience, habits, and market offerings.

CALCIUM—AND MILK

Women collaborating in a coordinated metabolic study in five of the North Central states showed the highest average calcium intakes. This group met the National Research Council's allowances, except for the women 70 years or older, whose average fell somewhat below. About one seventh of them were of low but not indigent economic level, about three fifths were comfortably situated as to buying power, and the remainder were of upper socioeconomic status. It seems reasonable to look upon the relatively high average intakes of this group as representing choices of people who could afford to buy milk products and other sources of calcium if they desired.

Women selected, by means of area sampling, as representative of all women 30 years old and over in Iowa and South Dakota, reported diets which for each age decade were considerably lower than the NRC allowances for calcium. A U. S. Department of Agriculture study of homemakers in three cities showed averages similar to the Iowa and South Dakota figures.

To sum up the calcium studies: women representing a cross-section of two midwestern states and three large cities ate on the average, during a twenty-four hour period, far less calcium than the National Research Council allowances and reported very low intakes of milk. The North Central women collaborating in the metabolic study showed a relatively high average intake, but contained individuals with calcium intakes far below recommended levels.

These findings provide good reasons for public health workers, community nutritionists, teachers, and other leaders to encourage higher calcium intakes. There seems also to be good nutritional, as well as business reasons, for producers and processors of calcium-rich foods, notably milk and cheese, to seek ways of improving products and increasing sales. Products such as the nonfat milk solids in the new fast-dissolving forms are convenient and economical.

VITAMIN C—AND FRUITS AND VEGETABLES

Men and women living in their own homes in San Mateo County, California, recorded average intakes of food supplying considerably more vitamin C, or ascorbic acid than the National Research Council allowance. However, men over 60 in the San Mateo County Home had low intakes. Intakes of the women in South Dakota which were somewhat below the allowance for ascorbic acid in all age decades, after 70 years of age averaged only half the recommended intake. The levels for women in the Midwest, South and Northeast averaged 10 per cent below the allowance.

Availability of citrus fruits and other rich sources of vitamin C on the West Coast would appear to have been a factor in the relatively high average intakes of men and women living at home. Even in California, the institutional diet was low in vitamin C.

The data from South Dakota indicated that more than half the ascorbic acid came from vitamin rich vegetables and fruits and almost one third from potatoes. About one tenth came from other fruits and vegetables. Within the vitamin rich fruit group, tomatoes were included and were used as much as any other single fruit; peaches came next, followed by oranges, grapefruit and berries. Among the San Mateo County subjects there was a definite relationship between serum ascorbic acid levels and vitamin C intakes and also between the serum levels and lack of teeth or gingivitis. In San Mateo County, serum ascorbic acid levels were lowest for those in the low economic group—the men in the County Home. The people on relief and assistance rolls were somewhat higher, those of the middle income group still higher, and those of the highest income level had the highest serum ascorbic acid levels.

To sum up the vitamin C findings: keeping the serum ascorbic acid high may save teeth. The low levels of intake observed in many parts of the country make it appear that foods rich in vitamin C need to be made more attractive to adults. Availability, cost, convenience are all factors to be explored. Frozen and dried citrus concentrates and other dependable year-round sources of vitamin C may deserve more attention.

FOOD INTAKE PATTERNS

The frequency of designated food groups in the twenty-four hour intakes was reported by women in the low sample. More than 90 per cent of the women had eaten fats; bread or other cereal products; meat, poultry, or fish. From 70 to 89 per cent had eaten white potatoes and desserts other than fruit. From 50 to 70 per cent had eaten vitamin rich vegetables and fruits; other vegetables; eggs, cheese, and legumes; and fluid milk. Less than half had had other fruits. The most popular kinds of foods among the Iowa women were fat, bread, meat, potato, and desserts other than fruit.

In the South Dakota sample 60 per cent of the desserts were "made"—with cakes leading in popularity, cookies and pies next. Total fat in the South Dakota diets was estimated at 40 per cent of the calories, 19

Issued by the National Tuberculosis Association.
By Esther L. Batchelder, Ph.D., *American Journal of Public Health,* October, 1956.

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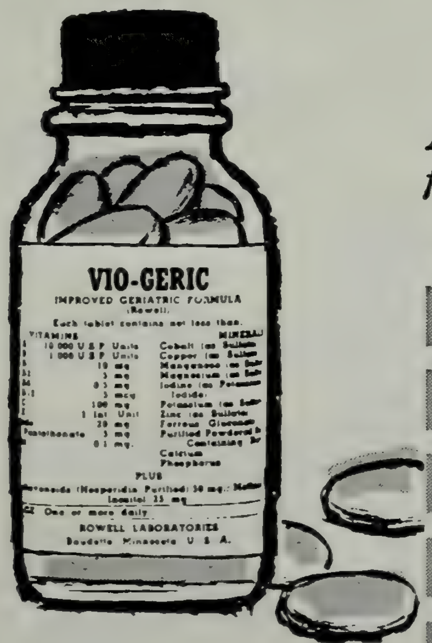

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CITY____________________**STATE**________ per cent coming from table fats. Whereas there was a decrease of average energy intake with age, there was no consistent drop in the percentage of total calories from major food groups. Sweets and desserts, then cereal products, then table fats accounted for more than 60 per cent of the calories. The popularity of high calorie foods should be considered as nutrition workers attempt to suggest ways to prevent and control overweight through diet.

Overweight has sometimes seemed associated in individual cases with unexpectedly low values for recorded or recalled food intakes. It is often suggested that the low values are actually underestimates (conscious or subconscious) of the actual food eaten. Perhaps where underestimations are reported it is in the quantities assumed as normal servings by the scientists calculating the nutritive value of the diet. For nutritional evaluation of diets the amounts of food must be known. One part of the North Central project was directed toward establishing characteristic sizes of servings through determining the weights of foods eaten. After age 70 decreases were apparent in most portion averages. However, the amounts of sugar and cream added to beverages and the amounts of table fat used increased after the age of 50.

For research workers the findings from these studies provide additional tools for evaluating dietary data, for improving methodology, and for planning new research. For community nutritionists and teachers the information would seem to provide support for continued emphasis on milk and vitamin rich fruits and vegetables as food sources of nutrients. The data made available should interest those concerned with various aspects of food processing, food service, and food habits.

The Crossing of the Curves: Tuberculosis and Lung Cancer

The decline in tuberculosis mortality and the sharp rise in lung cancer mortality have led to a "Crossing of the Curves." By 1950 in California primary cancer of the trachea, bronchus and lung was causing more deaths than tuberculosis among persons 65 years of age and over. By 1954 lung cancer deaths exceeded deaths from all forms of tuberculosis in the whole population.

DEATH RATES PER 100,000 POPULATION, CALIFORNIA

	1930	1954
Tuberculosis, all forms	99.1	9.8
Tuberculosis, respiratory	88.4	9.0
Cancer, respiratory system	5.2	17.9

Since 1930 tuberculosis mortality has dropped to one tenth of its rate at that time. The respiratory cancer rate meanwhile, has more than trebled with lung cancer comprising an ever larger proportion of the total.

FACTORS IN REDUCTION OF TUBERCULOSIS MORTALITY

Two groups of factors have contributed to the decline in tuberculosis mortality. First are the medical developments and second the general improvement in standard of living. Together they have accounted for a steady decline in tuberculosis mortality. The addition of antibiotics and other potent drugs to the therapeutic resources has accelerated the rate of decline. The annual incidence rate has likewise decreased, but at a less rapid rate. The tremendous expansion of x-ray survey programs has increased the proportion of known tuberculosis, but since in the U. S. there are still an estimated 150,000 unreported and largely undiagnosed and unsuspected persons with active tuberculosis diagnostic activities and propaganda for more frequent x-ray films must continue unabated.

A gradual change in the differential diagnostic problem is evident. In past years, tuberculosis was found more commonly on the chest film than all other serious chronic lung conditions combined. Today, lung cancer and lung suppuration challenge tuberculosis in frequency.

FACTORS IN THE INCREASE OF LUNG CANCER MORTALITY

Because so few patients with lung cancer survive even with treatment, the age adjusted mortality rate remains the best measure of the disease. This rate is still increasing rapidly. Improved methods of diagnosis account in part for the rise in lung cancer deaths. However, since 1940, the mortality rate for men in California has increased 147 per cent while that for women has been only 29 per cent.

Three sets of factors have been suggested to account for the increase and present data indicate that each of the three play a role in the development of lung cancer. Many studies have disclosed a greater frequency of cigarette smoking, especially heavy cigarette smoking, among patients with lung cancer as compared with controls. Several occupations have been incriminated, particularly those involving exposure to certain metallic substances or fumes. In this country carcinogenic substances have been isolated from polluted city air.

In evaluating the carcinogenic effects of environmental agents one must bear in mind the time factor. The evidence suggests that environmental factors lead to human cancer only after many years of exposure. Hence, the rise in lung cancer mortality during the period 1930-1960 may reflect environmental factors during the first half of this century. Likewise the environmental changes during recent years—e.g., vast increases in cigarette smoking among women and among young people of both sexes, entry of hundreds of thousands of persons into such occupations as welding, the heavy air pollution of certain cities—may portend a continuing increase in lung cancer mortality during the latter half of this century.

TUBERCULOSIS AND LUNG CANCER MORTALITY PATTERNS

The male predominates in mortality from both conditions. The ratio is about three to one in the case of tuberculosis, and five to one in lung carcinoma.

Tuberculosis, formerly a disease of adolescents and young adults predominantly, has now become a disease of middle aged and older persons predominantly. Lung cancer, too, it a disease of the middle and later years of life.

Tuberculosis is especially prevalent in slum areas, among poorly nourished persons, and among those liv-

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Issued by the National Tuberculosis Association.

By Edward Kupka, M.D., and Lester Breslow, M.D., Dis. Chest, (January) 1957.

ing in contact with infectious cases. Lung carcinoma is more scattered in their distribution; housing and nutritional factors seem to play little, if any, role.

DIAGNOSIS AND TREATMENT

Ordinarily, an x-ray film of the chest is the earliest method of detecting either disease. However, certain forms of tuberculosis and carcinoma cannot be easily differentiated on the film. In fact, the x-ray film usually cannot be considered definitively diagnostic unless supplemented by laboratory methods and histologic examination. In the case of tuberculosis, the demonstration of tubercle bacilli is definitive. In the case of carcinoma, biopsy or cytologic examination may give the answer. Every clinically silent lesion casting shadow on the chest x-ray film must have tuberculosis and carcinoma ruled out before any other diagnosis can safely be made. Resection of lung containing a small cancerous nodule in a person in apparently good health represents a triumph of preventive medicine.

The organization and technical machinery originally set up for tuberculosis can be and is being used increasingly to attack the problem of cancer of the lung. The same skills are necessary for diagnosis and treatment. As time goes on the epidemiology of cancer of the lung will assume a larger importance, and this will concern all health departments.

EPIDEMIOLOGIC APPROACHES TO CONTROL

The final conquest of tuberculosis depends upon preventing the transmission of infection from one person to another. Elimination of slums, the examination of every contact of tuberculosis cases, the x-ray film examination of every hospital and prison admission and the isolation of infectious persons will cut so many chains of person-to-person infection that virtual disappearance of the disease may be hoped for.

The factor of resistance is a very important one in tuberculosis. Improvement in general health and lessened crowding make transmission less likely. A significant factor in tuberculosis control is alcoholism which reduces resistance and increases chances of transmission.

No dependable data are at hand regarding the role of smoking in tuberculosis. However, respiratory trauma, which is inevitable in a coughing, compulsive smoker, probably decreases the ability of the pulmonary tissue to defend itself against the tubercle bacillus. On the other hand, overwhelming epidemiologic evidence now indicates that cigarette smoking is an important causative factor in lung cancer.

Further studies should be carried out. Even more needed is epidemiologic study of air pollution and occupations as causative factors in lung cancer. It is conceivable that cigarette smoking may have been the most important causative element in the increasing mortality from lung cancer up to the present time, but that other environmental factors may be active and more so in the future. Laboratory studies should be carried out to isolate the specific substances in the environment and the mechanics of action.

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*REFERENCE: J.A.M.A. 163: 359, 1957 (February 2)

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Book Reviews

UROLOGY, VOLUMES I, II, AND III. Edited by Meredith Campbell, M.D., Emeritus Professor of Urology, New York University, with the Collaboration of Fifty-one Contributing Authorities. Illustrated with 1,148 Figures. W. B. Saunders Company, Philadelphia. 1954. Price $60.00 per set.

"Urology," edited by Meredith Campbell is a three volume textbook written by fifty-two authorities in the field. Comprised of 2,356 pages, it is divided into eighteen major sections, with from one to twelve chapters in a section. Two major sections, "Embryology and Anomalies of the Urogenital Tract" and "Urology in Infancy and Childhood" have been written by Campbell, whose earlier textbook "Clinical Pediatric Urology" is widely accepted as a classic. The editor has also written the chapter on "Surgery of the Bladder." The remainder of the work is the product of the other fifty-one contributors who constitute a sort of All-American team, except for a few notables from outside the country. In the preface, Campbell notes that he declined the publisher's proposal to write a one volume textbook of urology alone, because he considers the subject beyond the scope of any one person for adequate presentation. As presented in this work that is certainly true, and it is questionable whether it is not also beyond the scope of any one reader for review. This writer has only made a small dent in the reading of the work and is obliged by the deadline now past to give up the completion of the project and review on the basis of sampling only. On any topic or question this is a superb reference book. Considering prostatectomy, for example, there are four chapters, one each on the suprapubic, perineal, transurethral and retropubic methods, each written by a world renowned expert in the particular approach. The adequacy of the basic science background is particularly notable in the section on "Neuromuscular Disease of the Urinary Tract." Here there is a wealth of experimental, statistical and clinical material including recognition of issues that are more or less settled and those still debatable. This, of course, is not all easy reading, but that is as it should be since this is not an easy topic or a simple problem.

The illustrations are abundant, well chosen and highly instructive. The captions are concise and easily understood so that one might profit exceedingly by going through the book just "reading the pictures" if he has not time to read the subject matter concurrently.

Another helpful feature of this work is that the index to all three volumes, a total of sixty-eight pages, is printed at the back of each of the three volumes, which makes it much easier to follow up on any topic than is the case in some multi-volume works in which only the last volume is provided with an index. The Table of Contents is similarly presented at the front of each volume.

In summary, it would seem the editor should have the feeling that his "ambition that this Urology be truly definitive, current and liberally illustrated" has been achieved by the publication of this masterwork. C.L.J.

CLINICAL EXAMINATIONS IN NEUROLOGY. By Members of the Section of Neurology and Section of Physiology, Mayo Clinic and Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota, Rochester, Minnesota. James A. Bastron, M.D., Reginald G. Bickford, M.B., Joe R. Brown, M.D., Edward C. Clark, M.D., Kendall B. Corbin, M.D., David D. Daly, M.D., Lee M. Eaton, M.D., Norman P. Goldstein, M.D., Edward H. Lambert, M.D., Clark H. Millikan, M.D., Donald W. Mulder, M.D., Harry L. Parker, M.D., E. Douglas Rooke, M.D., Joseph G. Rushton, M.D., Robert G. Siekert, M.D., Jack P. Whisnant, M.D. W. B. Saunders Company, Philadelphia. 1956. Price $7.50.

This comparatively brief manual, written by the Mayo Clinic neurologic staff, describes for the reader the complete and detailed investigation given the patient who presents a neurologic problem. Emphasis is on the technic of performing and evaluating this examination, separate chapters being devoted to the history, to the various parts of the neurologic examination, and to laboratory tests (for example, electroencephalography, electromyography and biochemical studies).

As in its famous older European counterpart, Monrad Krohn's *The Clinical Examination of the Nervous System,* there is an abundance of valuable instruction as to the differential diagnostic significance of signs elicited—material unavailable in standard text books of neurology, which are organized on the conventional basis of disease entities. This type of presentation with the reader, as it were, participating in the mental diagnosis process as performed by the Mayo Clinic staff on the basis of their vast clinical experience, makes for engrossing reading. As in the Monrad Krohn work, certain relevant neuro-anatomic subjects are presented in great detail, for example, the anatomy, innervation and function of the skeletal muscles.

A particularly compact and informative chapter presents neuro-opthalmology; recent material difficult to obtain outside neurophysiologic and physical medicine journals, is admirably summarized in a chapter on electromyography and electric stimulation of peripheral nerves and muscles. Also worthy of commendation is the brief but complete chapter on diagnostic biochemical tests and their interpretation.

In the reviewer's opinion, the pages devoted to the description and interpretation of specific printed forms used by Mayo Clinic might have been deleted. One wishes also that a chapter on neuro-roentgenology had been included along with other laboratory procedures.

These are minor criticisms and this volume on the technic and evaluation of the examination of the patient presenting a neurologic problem, can be unqualifiedly recommended. D.K.Z.

A REPORT ON A PROMISING CONCEPT IN ANTIMICROBIAL THERAPY: CONCURRENT ADMINISTRATION OF CHLOROMYCETIN AND GAMMA GLOBULIN

In treatment for infection, the physician is confronted with complex interactions between pathogen, antimicrobial agent and host. The pathogen represents the unselected factor, the therapeutic agent the component over which the physician exercises maximum control. But even with optimal antibiotic therapy, the eventual elimination of the infective agent and the resolution of pathologic changes depend upon efficient host response.[1,2]

Passive transfer of antibodies through gamma globulin provides a broad antibacterial spectrum because of origin in adults exposed to a variety of microorganisms. Employed as a protective element against some of the more common contagious diseases, gamma globulin permits more competent participation by the host in the fight against established infection.

Rationale for immuno-antibiotic therapy lies in simultaneous direct attack on the pathogen and re-enforced host resistance, which implies usefulness in treatment for acute fulminating, highly refractory, or prolonged infections.

EXPERIMENTAL STUDIES ENCOURAGING

In carefully controlled studies in mice, Fisher and his colleagues in Parke-Davis Research Laboratories, using pooled human gamma globulin and Chloromycetin (chloramphenicol, Parke-Davis) concurrently, demonstrated a high degree of therapeutic effectiveness in infected animals.[3] Five types of infection induced with species of Staphylococcus aureus, Streptococcus pyogenes, Proteus vulgaris and Pseudomonas aeruginosa responded to joint therapy with gamma globulin and Chloromycetin, each agent having shown at deliberately low doses in previous work little or no activity in these mouse infections when used separately. Fisher's experiences with hemolytic streptococci have been confirmed.[4]

Tests now in progress with pneumococci, salmonellae and additional strains of pseudomonas and proteus indicate that marked increases in survival rates may be anticipated in any infection where chloramphenicol has previously demonstrated therapeutic activity.[3] These observations suggest that immuno-antibiotic therapy can effect cures in a variety of refractory microbial diseases.

PROMISING IN EARLY CLINICAL TRIAL

Observations analogous to those of Fisher have been reported from the clinic.[5-7] More recently, the clinical use of gamma globulin in conjunction with antibiotics was undertaken by Waisbren[8] on the basis of Fisher's experimental work. His series of 46 patients with systemic and localized infections due to various strains of staphylococcus, pseudomonas, salmonella, proteus and to the pneumococcus had failed to respond to maximum effort with conventional therapeutic measures. Marked clinical improvement in six of these acutely ill patients shows clearly "...that in certain instances the addition of gamma globulin to antibiotic therapy may give a clinical result that could not have been obtained with the antibiotics used alone. In each of these cases, a long and extensive control period in which antibiotics were being vigorously administered had failed to produce a response but when gamma globulin was given with approximately the same dosages of antibiotic, rather marked improvements occurred."[8]

While the precise mechanism underlying the salutary effect of gamma globulin remains to be clarified, the existence of quantitative hypogammaglobulinemia was ruled out in patients in this series.[8]

A RATIONALE FOR IMMUNO-ANTIBIOTIC THERAPY

Although the relationship of susceptibility to infection and status of the host is well recognized, host resistance is an aspect of infectious disease still not understood in an era of extensive and of massive antibiotic therapy. Most antibiotics, in concentrations tolerated by living tissues, have bacteriostatic rather than bactericidal effect. In the clinic, bacteriostatic doses are most frequently given and host defense mechanisms are responsible for the eventually satisfactory clinical result.[4]

The problem of therapeutic failures despite vigorous courses of antibiotic therapy may be due to some disturbance in the immune process.[9] In addition, disproportionately high mortality rates in the extremes of life lend support to the impression of inadequate defense mechanisms, since these are underdeveloped and immature in the very young and may be impaired or depressed in the aged.[4]

Any discussion of immuno-antibiotic treatment must at present remain largely conjectural. From preliminary evidence, however, this approach to therapy appears worthy of consideration, especially in patients in whom adequate antibiotic therapy for active infectious processes has been disappointing. While the concept of enlisting the aid of the host in combating pathogenic microbes, thereby affording the physician control of two of the three principal interacting factors, is not new, enhancement of host resistance through use of gamma globulin in treatment for microbial disease is indeed a promising one.

REFERENCES:

(1) Swift, P. N.: *Brit. M. J. 1*:129 (Jan. 19) 1957. (2) Jawetz, E.: The Forgotten Host, *Stanford M. Bull., 13*:84, 1955. (3) Fisher, M. W.: *Antibiotics & Chemother.* 7:315, 1957. (4) Welch, H.: The Host and the Parasite. A New Clinical Approach to Biologic Relationships, *Antibiotics & Chemother.* 7:271, 1957. (5) De, S. P., & Basu, U. P.: *Brit. M. J.* 2:564, 1938. (6) Goldberg, S. L., & Bloomenthal, E. D.: *Surgery* 9:508, 1941. (7) Carnes, H. E.; Gajewski, J. E.; Brown, P. N., & Conlin, J. H., in Welch, H., and Marti-Ibanez, F., ed.: Antibiotics Annual, 1954-1955, New York, Medical Encyclopedia, Inc., 1955, p. 391. (8) Waisbren, B. A.: *Antibiotics & Chemother.* 7:322, 1957. (9) Harris, R., Jr., & Schick, B.: *J. Mt. Sinai Hosp. 21*:148, 1954.

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Curiosa et Trivia

William B. McCunniff, M.D.

One out of seven American physicians is serving as an intern or as a resident. Eighty-three per cent of internship positions and eighty-one per cent of residency positions are filled. Although financial consideration is not thought to be a factor in choosing an internship, Army and Navy hospitals have no vacancies and Public Health Service Hospitals are ninety-nine per cent filled.

Could this be overflow? It is reported that vitamin B_{12} is now being extracted from dried sewerage sludge.

Accidents constitute the greatest single cause of death in Americans under the age of 18. In the same age group, malignant neoplasms far outrank all other diseases as a cause of death, and are second only to accidents.

It is reported that eighty-five per cent patients with whiplash injuries develop "psychoneurotic" symptoms which fail to respond to treatment. But most of them largely disappear after settlement of litigation.

Black printing on white paper is exceeded in legibility by black on yellow, green on white, red on white, blue on white, and white on blue.

Our standard thesaurus still bears the name of its originator, in his lifetime a famed physician, Peter Mark Roget.

Capsule Clinics

I. A. Wien, M.D.

- The best treatment for subacute bacterial endocarditis due to enterococci is the combination of large doses of penicillin with streptomycin. Van Ommen, R. A.: Cleveland Clin. Quart. **24** (January) 1957.

- Irradiation with cobalt-60 to the stomach of 15 patients gave encouraging results. Gastric secretion was significantly reduced and the ulcer craters disappeared within six to 10 weeks in 13 patients. Green, M. F., et al.: Cleveland Clin. Quart. **24** (January) 1957.

- Elderly patients withstand necessary gastric operation about as well as younger patients from the standpoint of mortality; however one must do and observe the following: select patients carefully, have skillful anesthesia, try to obtain the optimal physical condition preoperatively, and avoid depressant drugs. Hoerr, S. O.: Cleveland Clin. Quart. **24** (April) 1957.

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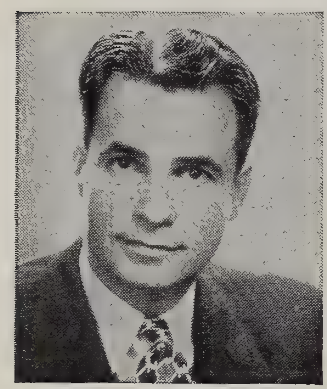
Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO



Dr. Harvey G. Mudd, St. Louis, who has been appointed major of the First Regiment Missouri Home Guards in charge of the medical service, has appointed Dr. E. Lee Dorsett captain, and Drs. Fred Fahlen and Horace Happel first lieutenants. The Association of the Purple Cross is a national organization of undertakers formed for the purpose of raising funds to send expert embalmers to the war zone to properly prepare the bodies of American soldiers for shipment and burial in America. This service will be rendered without charge to the government or the families of the deceased.

In a letter from Dr. Borden Veeder, we have an interesting account of the passage of Washington University Base Hospital Unit (No. 21) and the arrival in France. A significant passage confirms the general impression that the German government does not give the people or the men in the trenches honest information about our attitude in this conflict. Dr. Veeder says the German wounded prisoners were much astonished to see American doctors in the English army—the Germans had heard that America was in the war, but led to believe we were allied with Germany.

The National Board of Medical Examiners held its second examination in Washington, D.C., June 13 to 21. There were twenty-four qualified candidates, twelve of whom appeared for examination, the others having been ordered into active duty between the time of their application and the date of the examination. Of the twelve who took the examination, nine passed.

The Clay County Medical Society met in Liberty, on June 25, in the parlors of the Major Hotel. Twelve members were present, which was considered good this hot weather, when good men sleep. Dr. J. T. Rice of Excelsior Springs read the principal paper of the evening, on the subject, "The Physician Himself." This was a timely effort; too often we forget "to see ourselves as others see us," and always to our detriment. Dr. Rice's paper took up practically everything to constitute the doctor's mirror; his figure and personality; his dress, bearing, sick-room manners, religion, language, affiliations—in fact all that go to make the ideal physician. The paper was characteristic of Dr. Rice, original to a fault, and full of thought for the thinking man.

The St. Clair County Medical Society met in the Court House at Osceola, July 18, with twelve members present and five visitors. The society was honored by the presence of State Association President, Dr. Robert E. Schlueter, St. Louis; District Councilor, Dr. W. J. Ferguson, Sedalia; Secretary of the Henry County Medical Society, Dr. F. M. Douglass, of Clinton; Dr. N. I. Stebbins, of Clinton, and Dr. J. Y. Wilson, of Osceola. The Wright County Medical Society held their regular quarterly meeting at Norwood on August 2, 1917. The meeting was called to order by the president, Dr. R. A. Ryan, in Ellis Hall, at 2:00 p.m. The roll of members was called when the following answered present: Drs. Ames, Daugherty, Hubbard and Wittwer, of Mountain Grove; Drs. Ryan and Vannoy of Norwood; Drs. Fusion and Robers, of Mansfield. Visitors: Drs. Frame and Palmer, of Mountain Grove.

TWENTY-FIVE YEARS AGO

A RETROSPECT OF EIGHTY-THREE YEARS, CELEBRATING THE SEVENTY-FIFTH ANNUAL SESSION OF THE MISSOURI STATE MEDICAL ASSOCIATION

Joseph Grindon, M.D., St. Louis, spoke, "In the early summer of the year 1849 there met together a group of St. Louis physicians for the purpose of issuing a call to the medical profession of Missouri, inviting them to form a State Medical Association. They were a committee of the St. Louis Medical Society, appointed for the purpose. Up to that time Missouri had not been represented as a State in the American Medical Association. The chief exponent of the project was Dr. William S. McPheeters. The others were Drs. John B. Johnson, S. Gratz Moses, George Engelmann and George Penn.

"The first meeting was held in St. Louis in November of the same year 83 years ago. Dr. W. G. Thomas, of Boonville, was elected president, and Dr. J. S. B. Alleyne, of St. Louis, secretary. The second meeting was held in Boonville in April of 1850, Dr. McPheeters presiding. Dr. D. M. Davidson, of Cole County, presented a report on obstetrics and diseases of women and children; Dr. Joseph Nash McDowell, of St. Louis, on surgery; Dr. M. L. Linton, one on medicine, and Dr. John Laughton on medical education.

"The Association continued to hold annual meetings until 1858 when they were suspended on account of the conditions which led up to the Civil War. In 1867 the reorganization of the Association was accomplished, and a meeting held in St. Louis under the presidency of Dr. G. A. Williams, of Boonville. Since that time annual meetings have

(Continued on page 833)

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

The Missouri Academy of General Practice will hold its 9th Annual Scientific Assembly on October 30 and 31 at the Governor Hotel, Jefferson City. Ten hours category I postgraduate credit for AAGP members.

PROGRAM

Tuesday, October 29

7:00 p.m. Business session with Board of Trustees.

Wednesday, October 30

9:00 a.m. Business Session.

SYMPOSIUM ON ENDOCRINOLOGY

10:00 a.m. Iatrogenit Thvroid Disease, Thomas W. Burns, M.D., Columbia.

10:15 a.m. Relative Value of Different Thyroid Tests, Edward H. Hashinger, M.D., Kansas City.

10:30 a.m. Management of Nontoxic Nodular Goiter, Daniel L. Sexton, M.D., St. Louis.

10:45 a.m. Oral Antidiabetic Compounds, Dr. Burns.

11:00 a.m. The Use and Abuse of Androgens and Estrogens, Dr. Sexton.

11:15 a.m. Obesity and Its Management, Dr. Hashinger.

11:30 a.m. Panel on Endocrinology.

12:00 noon Lunch and Viewing Exhibits.

SYMPOSIUM ON GASTROENTEROLOGY

1:30 p.m. Newer Concepts of Achalasia (Cardiospasm) of the Esophagus, Nicholas Hightower, M.D., Temple, Texas.

1:45 p.m. Diagnosis and Treatment Relative to Carcinoma of the Esophagus, H. M. Pollard, M.D., Ann Arbor, Mich.

2:00 p.m. Upper Gastrointestinal Bleeding: Roentgen Aspects, Don C. Weir, M.D., St. Louis.

2:15 p.m. Physiological Basis for Medical Management of Uncomplicated Duodenal Ulcer, Dr. Hightower.

2:30 p.m. Treatment of the Bleeding Peptic Ulcer, Eugene M. Bricker, M.D., St. Louis.

2:45 p.m. X-Ray Therapy in Peptic Ulcer, Dr. Weir.

3:00 p.m. Intermission to View Exhibits.

3:30 p.m. Recent Developments in the Problem of Gastric Carcinoma, Dr. Pollard.

3:45 p.m. Indications for Operation in Gastric Ulcer, Dr. Bricker.

4:00 p.m. Complications of Chronic Ulcerative Colitis and Their Management, Dr. Hightower.

4:15 p.m. Carcinoma of the Pancreas, Dr. Pollard.

4:30 p.m. Panel on Gastroenterology.

5:00 p.m. Adjournment.

7:30 p.m. President's Installation Banquet and Dance. Speaker: Dr. Leon Hill, Amarillo, Texas.

Thursday, October 31

SYMPOSIUM ON CHEST DISEASES

8:30 a.m. Hemoptysis in Older Men, Katharine Boucot, M.D., Philadelphia, Pa.

8:45 a.m. Bronchoscopy in Diagnosis of Diseases of the Chest, Herman J. Moersch, M.D., Rochester, Minn.

9:00 a.m. Pleural Effusion, Paul Murphy, M.D., St. Louis.

9:15 a.m. The Enhanced Current Significance of the Tubercular Test, Dr. Boucot.

9:30 a.m. Pulmonary Infarctions, Dr. Moersch.

9:45 a.m. The Role of Surgery in the Management of Unilateral Pleural Effusions, Thomas H. Burford, M.D., St. Louis.

10:00 a.m. Intermission to View Exhibits.

10:30 a.m. Problems of the Isolated Nodular Lesion in Chest X-Ray, Dr. Moersch.

10:45 a.m. Lung Cancer Detection With Emphasis on the Limitation of Roentgen Examination, Dr. Boucot.

11:00 a.m. Surgical Approach to Lung Cancer, Dr. Burford.

11:15 a.m. Treatment of the Terminal Case of Lung Cancer, Dr. Murphy.

11:30 a.m. Panel on Chest Diseases.

12:00 noon Lunch and Viewing Exhibits.

1:00 p.m. Heart Disease in Pregnancy, James G. Janney, M.D., St. Louis.

1:45 p.m. Intermission to View Exhibits.

2:15 p.m. The Present Place of Surgery in Heart Disease, Charles P. Bailey, M.D., Philadelphia, Pa.

3:00 p.m. Treatment of the Arrythmias, William A. Sodeman, M.D., Philadelphia, Pa.

3:45 p.m. Adjournment.

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WASHINGTON

Doctors of medicine would be covered by social security, under a bill (H. R. 8883) introduced by Rep. Robert W. Kean of New Jersey, a Republican member of the House Ways and Means Committee.

Kean said he had "received thousands of expressions from doctors asking for and indorsing" his proposed legislation, according to a recent item in the Washington Report on the Medical Sciences.

However, the Missouri State Medical Association and the American Medical Association are on record as opposed to such compulsory coverage.

Another proposal of Kean's measure would raise the maximum wage basis on which contributions are made from $4,200 a year to $4,800. This would mean a maximum annual payment of $162 for self-employed physicians, figured at the current contribution rate of 3.375 per cent. The rate climbs to 4.125 per cent in 1960.

Under his bill doctors would be eligible for old age and survivors insurance at age 65 or age 50 if totally and permanently disabled.

Hospital care is the most expensive item in the medical care of individuals supported by federal-state public assistance programs.

Incomplete statistics released by the Bureau of Public Assistance for the last half of 1956 place the hospitals' share at 37.9 per cent, according to a recent American Medical Association Washington letter.

Physicians' services accounted for 13 per cent. Nursing homes and home care maintenance added up to 29.5 per cent, with drugs and supplies and other services making up the balance.

The Census Bureau has been asked to include questions on polio vaccinations in its monthly sample population survey to determine what groups and areas are in greatest need of Salk vaccine.

The request was made by the Public Health Service that is urging communities to plan inoculation campaigns now and have them ready when supplies are adequate.

The American Medical Association Washington letter reports that Surgeon General Burney said 68 million persons have received at least one shot since the vaccine first was made available in 1955. He estimates about 41 million under age 40 still have had no injections.

Three doses still are advised, according to the A.M.A. letter.

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LAKESIDE

14357

Woman's Auxiliary

Mrs. Armand D. *(Ruth Anne)* Fries, *President*

On September 20 and 21, the Clay County Medical Auxiliary will be the hostess to the board members of the Woman's Auxiliary to the Missouri State Medical Association, at the "Elms Hotel," in Excelsior Springs. All county presidents and their board members are especially invited. Again this year, our meeting will be patterned after the Conference of President, Presidents-elect and national board members of the A.M.A. Auxiliary, with panel discussions and resource speakers on various phases of our Auxiliary Activities.

Mrs. Maurice Chastain is chairman of arrangements, with Mrs. J. E. McCormick, as co-chairman; and Mrs. John B. Withrow, president, and the members of the Clay County Auxiliary on the hostess committee.

Clay County operates on standard time, and registration will begin at 1 o'clock on Friday. We hope to begin our meeting promptly at 1:45 and our first panel will be on "Mental Health," moderated by Mrs. Robert B. Bristow, St. Joseph, the State Chairman. She will introduce her speaker, Dr. Louis H. Forman, M.D., Kansas City, a leading psychiatrist, and a member of the Jackson County Medical Society.

Each panel will be given thirty minutes with a question and answer period. The next panel will be on "American Medical Education Foundation" with Mrs. Maximilian Weitman, of St. Louis County, chairman. She will introduce James P. Murphy, M.D., assistant professor of clinical medicine, in the Department of Internal Medicine, St. Louis University School of Medicine, the guest speaker. Dr. Murphy is currently Chairman of the American Medical Education Foundation Committee, and for the last two years served as State chairman of Medical Education Week, which is observed throughout Missouri annually during the month of April. A check for $113,581.77 from the Woman's Auxiliary to the A.M.A. was presented to Dr. George Lull, vice-president of the American Medical Education Foundation, at the national meeting in June, for distribution to the nation's medical schools. Missouri contributed $1,914.24, more than double the amount given last year. It is our goal again this year, to subscribe a minimum of $1 per member. This project heads the list of activities we are again asked to include this year, and perhaps for many years to come.

Mrs. Robert Dunshee, Maryville, is our Civil Defense Chairman. She was in England during the war and is well acquainted with the importance of civil defense education, should the emergency arise. We are hoping to hear some of her experiences on this vital topic. We should all be educated in home protection exercises and not only to learn home nursing, but to teach classes to others, in the communities.

"Health Careers Recruitment," another of our major objectives, will have a panel with Mrs. A. P. Stephan, state chairman, as moderator; and Mrs. Robert B. Stewart, as co-chairman. Mrs. Stephan, Jefferson City, is president of the Missouri Council on Health Careers; and Mrs. Robert B. Stewart, Sedalia, will be the chairman of the Booth at the State Fair, which has been a successful project for several years. Their speaker will be a registered nurse from the health service, North Kansas City Schools.

The "Legislation" panel, with Mrs. T. Reed Maxson, Warrensburg, our State legislation chairman, as moderator, will present Mr. William Logan, of the Missouri State Medical Association staff. He formerly covered "Legislation" for the *Kansas City Star,* and he will discuss health legislation, on the national and local scene.

"Safety," the latest project to be added to our agenda, is vastly important to us all, at home, at work or at play. Because of the alarming increase through accidents, it is to be given added emphasis this year. Mrs. C. Alex McBurney, Slater, safety chairman for the state, will be the moderator of this panel.

We are happily anticipating the visit of Mrs. Chas. H. Flynn, Clarinda, Iowa, to our meeting. Her presence will not only grace our meeting, but add greatly to its stature. She is a past state president of the Iowa auxiliary, and currently program chairman of our national auxiliary. She will visit with us, with the approval of the national auxiliary and will use her time in answering questions. Certainly this should be "sweet music" to the ears of our Board members, for at the beginning of a new term of office, there are countless questions to which we all would welcome an authoritive answer. So be thinking of all your perplexing questions and Mrs. Flynn promises to be most informal, and she will try to answer them all for you.

Our meeting will adjourn about 4:30 and at 5:30 o'clock there will be a social hour, at the home of Dr. and Mrs. E. B. Robischoux, Excelsior Springs: to be followed by a banquet at 7 o'clock in the Ballroom of the Elms. Clay County Auxiliary have procured Mrs. Bea Johnson, women's director of KMBC-TV, who will tell of her trip to Russia, May

(Continued on page 833)

Missouri Medicine in Review

(Continued from page 818)

been held without interruption. So that, although we are 83 years old, this is only our 75th annual meeting and may therefore be considered our diamond jubilee."

The construction of the City Hospital for Negroes at St. Louis will be begun about the middle of September. The service building will be the first to be erected at a cost of $254,088. The building will be 250 feet long, 102 feet wide and two and one-half stories high. When completed the several units will house 300 patients. The present hospital for Negroes is a fire trap and overcrowded.

Dr. W. McKin Marriott, St. Louis, dean and professor of pediatrics, Washington University School of Medicine, began a series of lectures and clinics in the University of California School of Medicine late in August. His schedule will include eighteen addresses and clinics and ward rounds. He will return to St. Louis late in September. Flat rates for medical service at the Western Reserve University hospitals, Cleveland, were announced July 24. The rate includes costs for room and board, regular nursing service, operating room laboratory and roentgen ray service and formulatory drugs. Patients receiving hospitalization will in this way know in advance the exact cost. If the patient remains a shorter time than had first been considered necessary refund will be made on a per diem basis and the same basis will apply for any patient who must stay longer than anticipated.

Dr. M. Pinson Neal, Columbia, professor of pathology, University of Missouri, was invited to spend the summer quarter at the University of Tennessee School of Medicine, Memphis, as acting professor of pathology and bacteriology.

TEN YEARS AGO

The American Medical Association announced recently that 70 per cent of the 6,252 students who have been selected as freshmen to enter medical schools and schools of basic sciences in the United States in 1947 are war veterans. The freshmen students selected up to June 1947 include 4,399 male veterans and 598 women (9 per cent). Forty-seven of the women are veterans.

The report points to the more than 100 per cent increase in the number of approved residencies in civilian hospitals in the United States since 1941. It states that "the present total is 12,003 residencies as compared with 5,256 at the beginning of the war. In 1941 the hospitals approved by the American Medical Association for the training of resident physicians totaled 610. This number has now increased to 1,017, including nine hospitals of the Army, 16 of the Navy, eight of the U. S. Public Health Service and 51 of the Veterans Administration."

Missouri State Medical Board examinations will be given on October 20, 21, 22, 1947, in St. Louis by the State Board of Medical Examiners of Missouri. William W. Stanbro, M.D., St. Louis, has been named chief roentgenologist at the George Washington University Hospital and assistant professor of radiology of George Washington University, Washington, D. C. The Excelsior Surgical Club, a national organization of surgeons who served in the Mediterranean Theater during World War II, will meet in St. Louis on October 17 and 18. The meeting will open with the Edward D. Churchill Lecture presented by Evarts A. Graham, M.D., St. Louis, at the St. Louis Medical Society at 8:30 o'clock on October 17. The lecture was inaugurated in 1946 in honor of Dr. Churchill, the John Homans Professor of Surgery of Massachusetts General Hospital, who was Chief Surgical Consultant in the Mediterranean Theatre of Operations during World War II.

Woman's Auxiliary

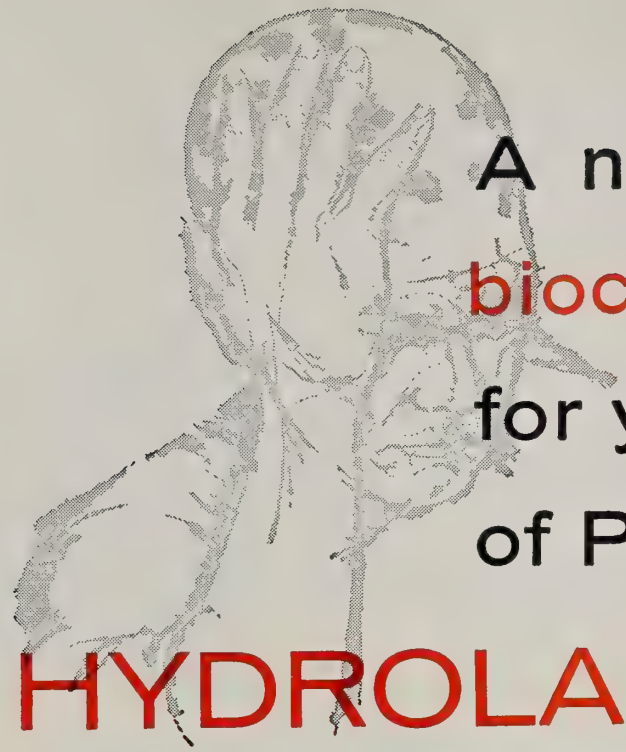
(Continued from page 826)

1957. Mrs. Johnson arranged the tour for 18 women (broadcasters and writers) and 2 men, a photographer and a radio adviser. They were allowed to record interviews with top leaders and to take television pictures. This was the first group of American women to ever set foot on Russian soil. We expect this to be an interesting program.

We will resume our meeting at 8:45 on Saturday morning with reports from the other committee chairmen, and progress reports of officers and county presidents. These are to be brief as we hope to adjourn before our luncheon at 1 o'clock in the ballroom of the Hotel. The afternoon will be free for guests to enjoy the facilities of the hotel, swimming, tennis, horseback riding, golf, croquet or cards.

These are some of the highlights planned for the two day session. The Elms operates on the American plan, and reservations must be made by September 13 with the manager. We hope that many of our Doctors will be able to come with their wives and stay for the weekend, but in the event that you cannot come along, please encourage your wife to attend. Much thought and effort is being put into this meeting, and we expect it to be a fine one.

Our slogan for the year is "Health is a joint endeavor," and for the doctors who do not have an Auxiliary member in their family, may we suggest that you too encourage your wife to visit with us at this beautiful resort meeting. The welcome sign is always out, and we need the support of every doctor's wife in the vast program of the Auxiliary; and this is a fine time to get acquainted with members from all over our state, and see and hear first hand what we do and how we operate.



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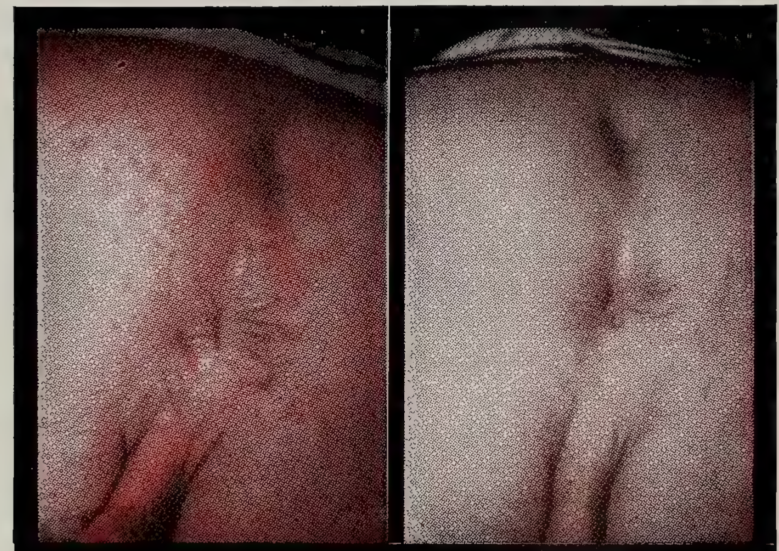

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1. Bodkin, L. G., and Ferguson, E. A., Jr.: Am. J. Digest. Dis. 18:59 (Feb.) 1951. 2. Arthur, R. P., and Shelley, W. B.: J. Invest. Derm. 25:341 (Nov.) 1955. 3. McGivney, J.: Texas J. Med. 47:770 (Nov.) 1951.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 54 September, 1957 Number 9

Maxillo—Facial Trauma

CLIFFORD L. KIEHN, M.D., AND JOHN D. DES PREZ, M.D., *Cleveland, Ohio*

Facial trauma to both soft and bony structures is common, particularly to the guest passenger occupying the front seat of the automobile.

Consultation among automobile engineers, medical profession and the Automotive Crash Injury Research Project of Cornell University Medical School has attempted to diminish these serious facial injuries by change of interior design. In certain of the cars this has been acomplished but, paradoxically, greater speeds have been made available by increasing the horsepower.

When such a patient is brought to the emergency ward of the hospital as seen in figure 1, there may be many emergent conditions present requiring immediate relief. The obvious necessity, a patent airway, must be provided for at once. Rapid facial and cervical edema and extravasted blood in the fascial planes of the neck produce obstruction to the airway as do also fractures of the mandible through the symphysis with posterior displacement of the floor of the mouth. A tracheostomy should be the rule and not the exception, particularly if it is easily ascertainable whether there are severely comminuted facial fractures with craniofacial separation, all requiring surgical replacement.

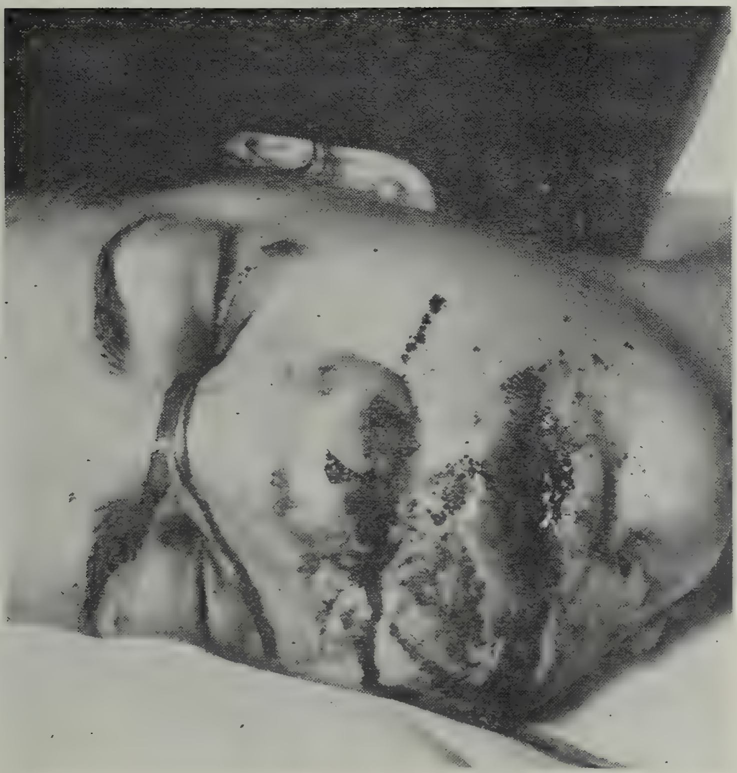

Fig. 1. Dash board facial injury with concussion, lacerations and facial fractures.

The stoppage of hemorrhage and the treatment of shock are self evident.

In the presence of multiple injuries it probably is well to have available consultants in the various specialties as a great deal can be accomplished to prevent delay of treatment to the multiple injuries.

All too often, upon admission to the emergency ward of the hospital, the treatment of these patients is delegated to a junior member of the house staff. Due to lack of experience, and therefore immature judgement, errors of treatment are made. Under proper supervision many resultant deformities which may require numerous operative procedures and long hospitalizations could be prevented.

It is recognized that, of necessity, facial trauma may be neglected purposefully because of the presence of higher priority shock producing concomitant injuries. However, if the trauma is solely confined to the face it is important to direct all efforts to the return of all structures to their rightful anatomic position without delay and as atraumatically as possible.

Some of these principles are brought out by the patient shown in figure 2a. A seemingly minor abrasion resulted when she was thrown from an automobile and dirt was introduced into the corium of the facial skin. The wounds were washed and dressed. Ideally, these defects are best prevented by the liberal use of a scrub brush or the application of the abrasive technic which removes all the dirt and allows the wound to heal as a par-

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From the Department of Surgery (Plastic Section), Western Reserve University School of Medicine, University Hospitals, St. Luke Hospital, Cleveland, Ohio.

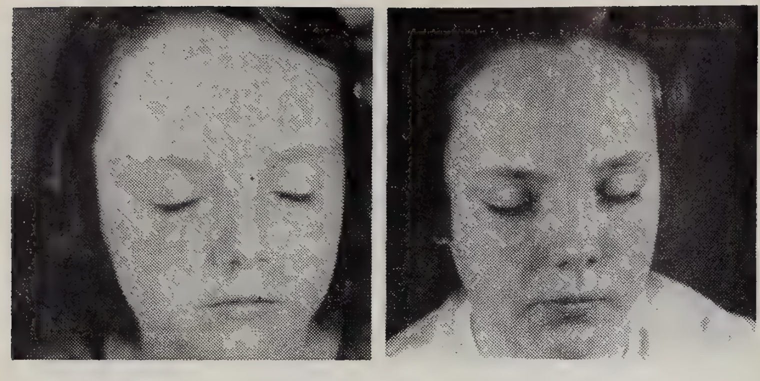

Fig. 2a. Retained dirt in corium of skin. b. Post planing and excision of traumatic tattoo.

tial skin loss burn. This can be done under local anesthetic. If allowed to heal without the removal of the foreign material the epithelium covers the dirt, a tattoo results and the patient then will have to submit to another operative procedure for its removal (figure 2b).

There are many principles of facial wound closure that must be stressed so that good cosmetic results may be obtained primarily. One of the most important points is the atraumatic handling of injured tissue during the closure. Even with large cumbersome instruments usually supplied by hospital emergency wards, tissue can be manipulated without crushing and further destroying of partially devitalized tissue.

Small suture material must be available, not only for the skin closure but also for the subcutaneous closure. Large suture material leaves large suture scars which are difficult to remove or hide (figure 3a). It is also true that more wound infections occur because of introduction of large suture material and the retention of foreign material than from any other cause.[1] The correction of this defect required complete debridement of the wound; entailing the removal of a foreign body, excision of the scar and, most important, the application of a "Z" plasty on the eyelid which prevented recurrence of the contracture (figure 3b). A vertical laceration on the eyelid should never be sutured vertically; but rather, zig zagged to break up the straight line.

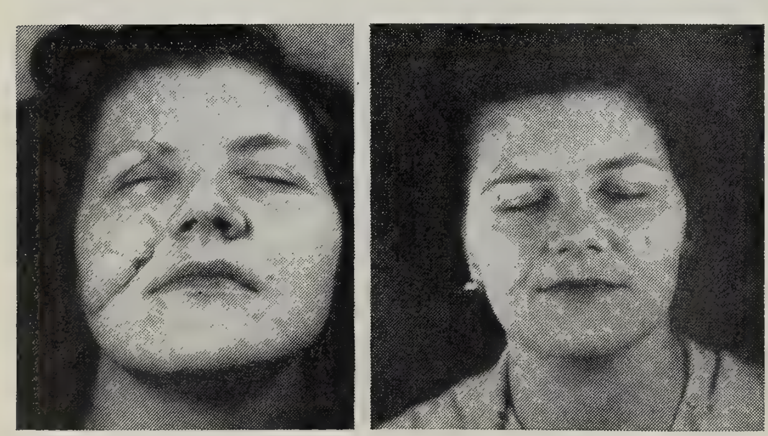

Fig. 3a. Retained foreign body, large stitch marks and contracture of upper lid. b. Correction of eyelid contracture with "Z" plasty and scar revised.

Every effort must be made to preserve blood supply to the lacerated, partially avulsed tissue to prevent further death of the cells. This is shown in figure 4a, where the forehead skin was partially avulsed in a pedicle flap. There was a superficial loss of tissue along one edge, but a larger loss could have been possible if the surgeon had turned the flap back on its base and thereby cut off the blood supply. It is true that because of the good blood supply pedicle flaps can be elevated in this region with impunity if designed and cared for properly. The loss shown in this flap was probably due to crushing of the tissue at the time of injury. It was corrected by reelevating the flap, thinning it, and replacing it into the defect with careful closure in two layers (figure 4b).

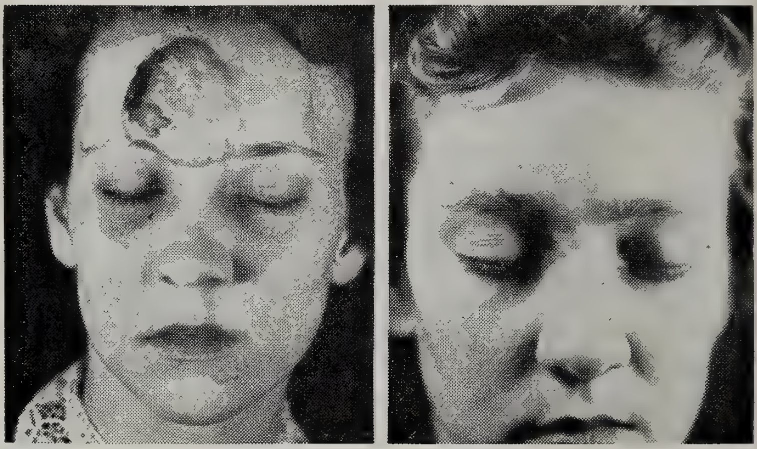

Fig. 4a. Partially avulsed forehead flap with loss of edge. b. Flap debrided and thinned.

The revision of scars of the face requires meticulous technic to obtain the best cosmetic results (figure 5a). The scar must be widely excised and undermined (figure 5b), after all induration has subsided. The closure is shown in figure 6, demonstrating the insertion of the inverted subcutaneous stitch which includes a part of the dermis as well as the subcutaneous fat. This stitch is a number 13 or 23 white nylon suture which performs most of the work in keeping the edges of the wound together. The epithelium is sutured with 000000

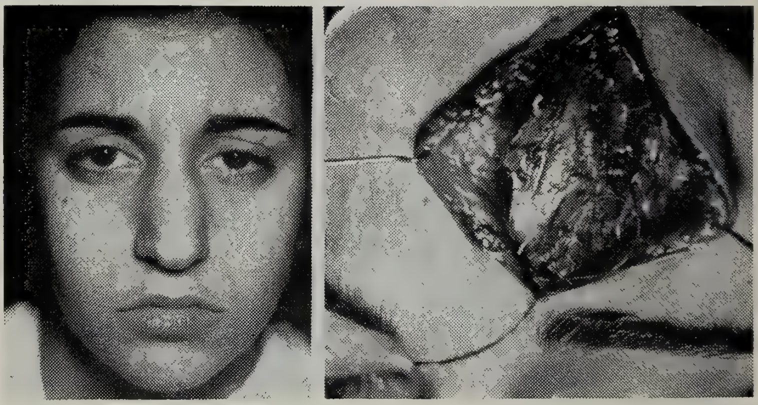

Fig. 5a. Irregular vertical scars of the forehead and eyelid. b. Scar excised and widely undermined to relieve tension and partially closed.

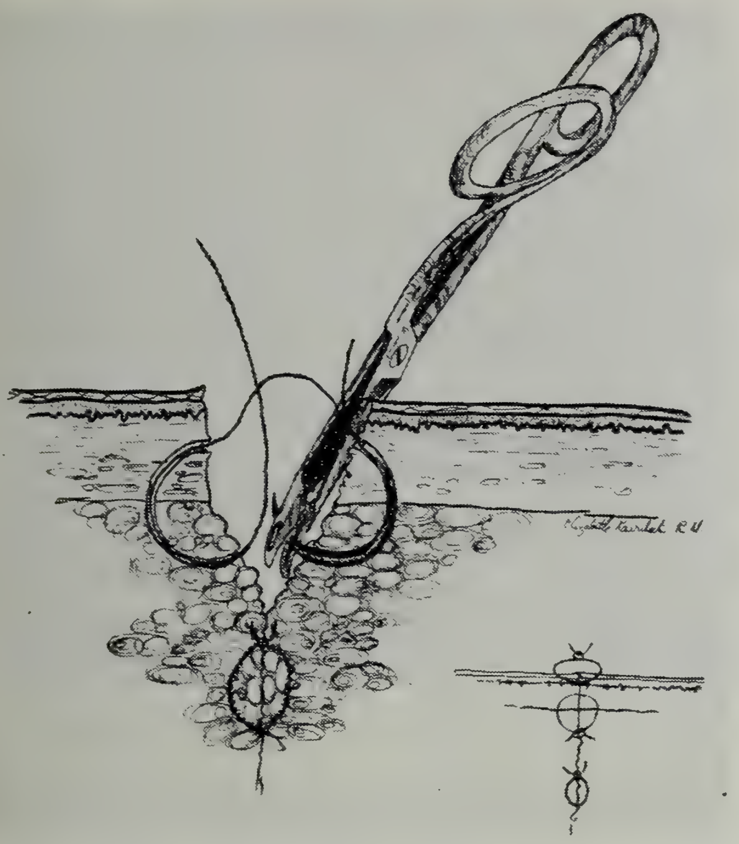

Fig. 6. Diagram showing the placement of inverted suture in derma and subcutaneous tissue.

silk, which is removed in four days (figure 7). All repaired facial wounds should be covered with a pressure dressing.

Deeper facial lacerations require complete exploration of the depths of the wound to determine the extent of trauma to underlying structures. The parotid duct, which lies one finger breadth below and parallel to the zygomatic arch, is frequently severed (figure 8). The severed duct or its tributaries should be corrected to prevent the pooling of the saliva in the cheek or the development of a cutaneous fistula. If the duct has been cleanly cut it should be sutured over a catheter. The duct may have been lacerated so badly that it cannot be sutured, in which case the proximal end can be sutured to a mucous membrane pedicle flap developed from the oral mucosa.[2] The saliva then by passes the usual route into the mouth through the epithelial lined parotid oral fistula.

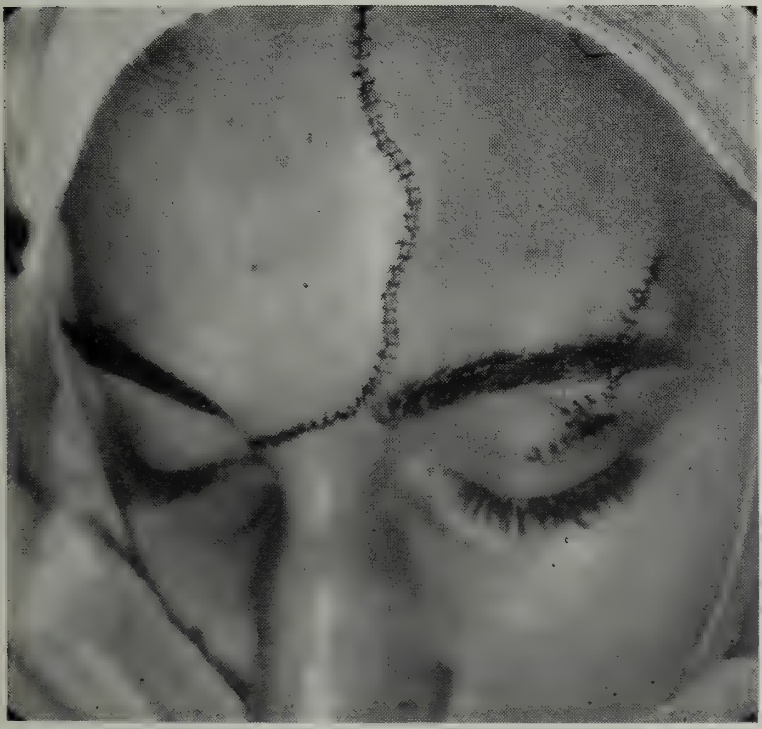

Fig. 7. Wound closed with fine suture. "Z" plasty done on eyelid.

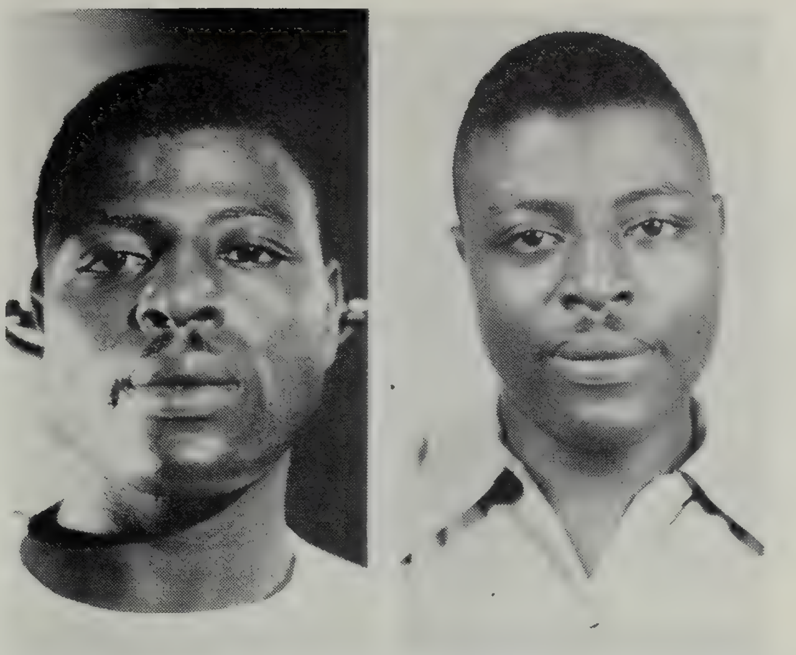

Fig. 8. Parotid salivary cyst and correction with a mucous membrane pedicle graft.

Deeper injuries may include fractures of the facial bones as well as lacerations. Facial fractures are quickly masked by edema (figure 9), and are therefore sometimes not suspected or entirely missed.

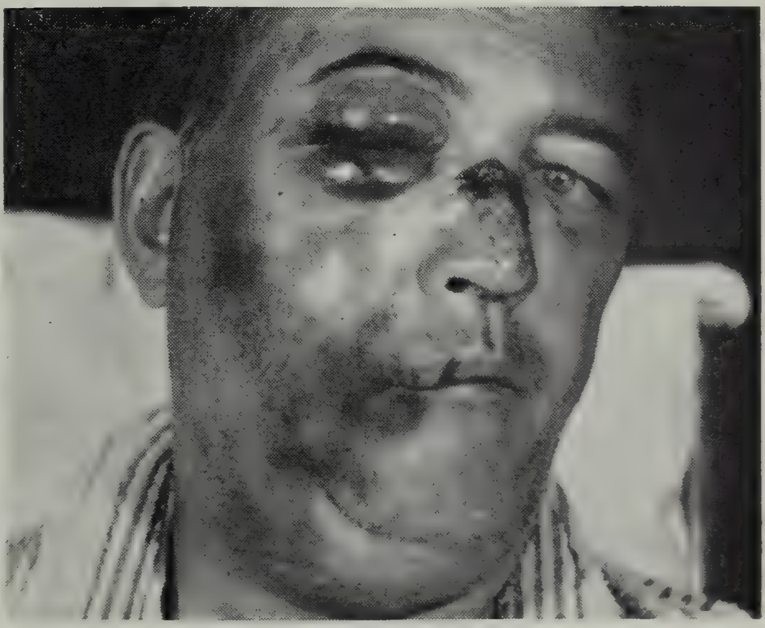

Fig. 9. Fractured zygoma.

Diagnosis of facial fractures can be made if careful and systematic examination is done by palpation beginning along the supraorbital ridges at the glabella and progressing laterally to the outer canthus of the eyes, then medially along the infraorbital ridges attempting to ascertain irregularities in an otherwise normal contour. Intraoral examination will ascertain if malocculsion has resulted from comminuted fractures of the maxilla.

Fractured zygomata (figure 9) should be suspected in all unilateral traumatic swellings of the face. Diagnosis can be made by the history of a blow, the presence of a depression or bony asymmetry, paresthesia of the upper lip, anesthesia of the maxillary incisors; and if the arch is depressed there will be interference with the excursion of the mandible.

The fractured sites and the amount of displacement are best determined by the Waters projection (figure 10a). It is usually difficult to demonstrate all four lines of fracture required to produce displacement of this bone.

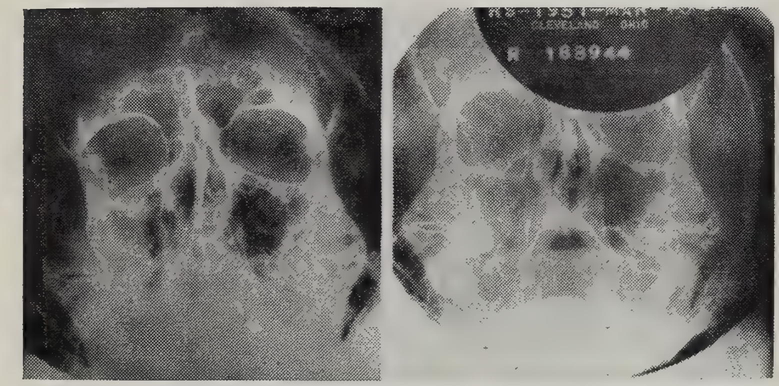
Fig. 10a. Waters projection x-ray showing fracture malar. b. Open reduction of malar.

Reduction is best obtained through the open method by replacing the displaced fragments into their normal position by exerting pressure from behind the bone. A high percentage of the cases will have a separation at the fronto-zygomatic suture line when the bone is depressed. Access to the fracture site is best obtained through an incision in the outer pole of the eyebrow, exposing the fracture site, drilling a hole in each fragment, replacing the bone in its original position, and wiring it with a No. 28 stainless steel wire. This supports the bone from a fixed point, namely the zygomatic process of the frontal bone, which counteracts the pull of the masseter muscle and prevents displacement (figure 10b).

Fractures of the maxillo-zygomatic compound present many problems to the restoration of normal anatomy. Technics in the past all relied on some form of external fixation in an attempt to replace the jigsaw pieces of bone (figure 11). This type of an appliance has many disadvantages such as difficulty in remaining stable with the application of traction, being cumbersome, and the production of decubiti.

In lieu of this "Statue of Liberty" type of appliance, open reduction of the fractured bones is accomplished through multiple incisions over the fracture sites.

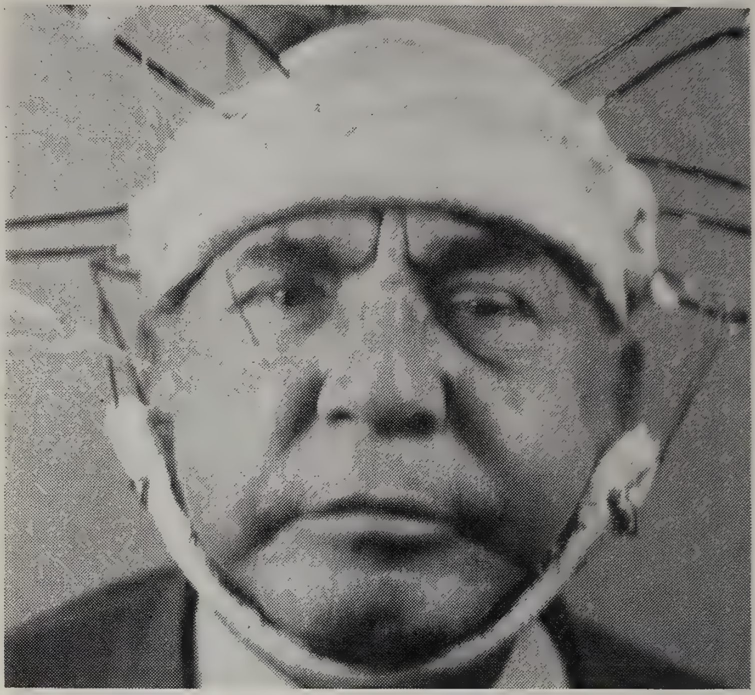
Fig. 11. External appliance for middle third fractures of the face.

The open method of reduction offers the important advantage of control of the fragments after they are replaced into their rightful position (figure 12a). All the bones of the middle third of the face are suspended from fixed points, usually the zygomatic process of the frontal bone, as this bone is rarely fractured.

Not only must the bones of the face be replaced but the reestablishment of the vertical distance between the nasal spine and the gnathion must be accomplished so there will be normal excursion of the jaws. This is done by bringing the teeth into normal occlusion with interdental ligation of rubber on labial arch bars (figure 13). After occlusion has been established wires are threaded through the cheek up to zygomatic-frontal suture line which has been previously wired as in figure 10b. The wires are then tightened, which elevates the middle third of the face along with the mandible into its normal position. As an added convenience a pull out wire is inserted through the forehead for the removal of the wires that have been placed through the cheek.[3, 4]

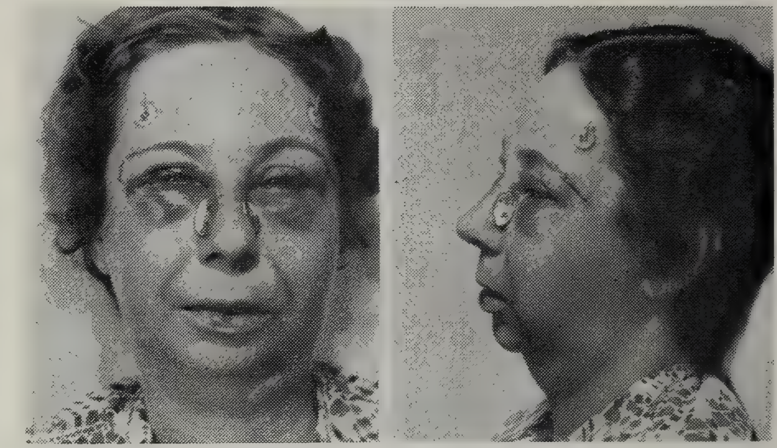
Fig. 12a. Post open reduction of middle third fracture of the nose and facial bones. b. Lateral view of facial and nasal fractures. Splayed nose reduced with mattress wire suture over lead plates.

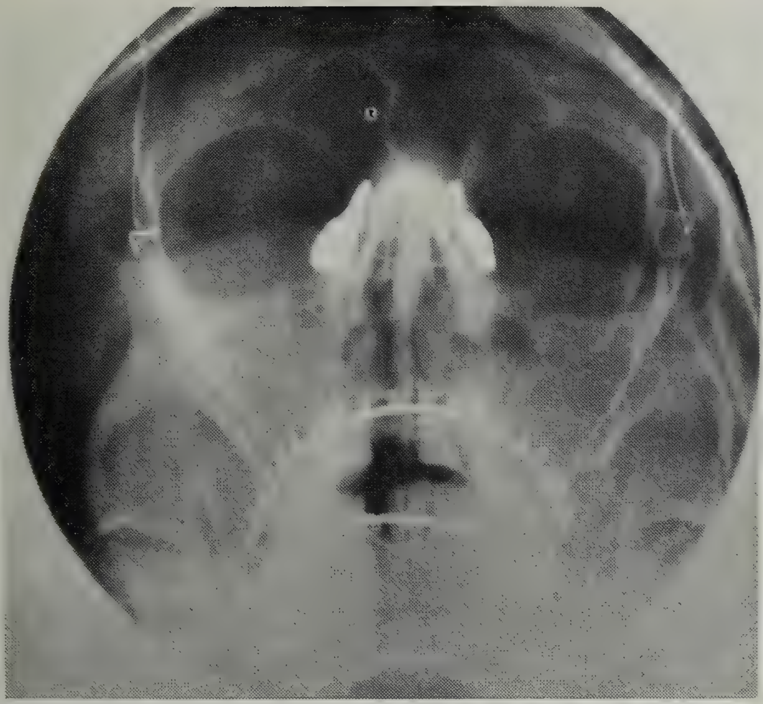

Fig. 13. Post reduction x-ray showing arch bars, suspension of facial bones from frontal bone and pull out wire.

The flattened nose is elevated into position and held by a mattress wire suture bolstered by lead plates (figure 12b). Wires to the jaws are left in place for about three weeks (figure 14). Feeding of high caloric protein liquid diet is done through the oral route, necessitating strict oral hygiene.

Gunshot wounds will produce great destruction of deep structures of the face, requiring many operative procedures to restore normal function and contours (figure 15a). The avenue of entrance of the missle is usually small, destroying greater amounts of tissue as it traverses its path, and finally causing great destruction at its exit.

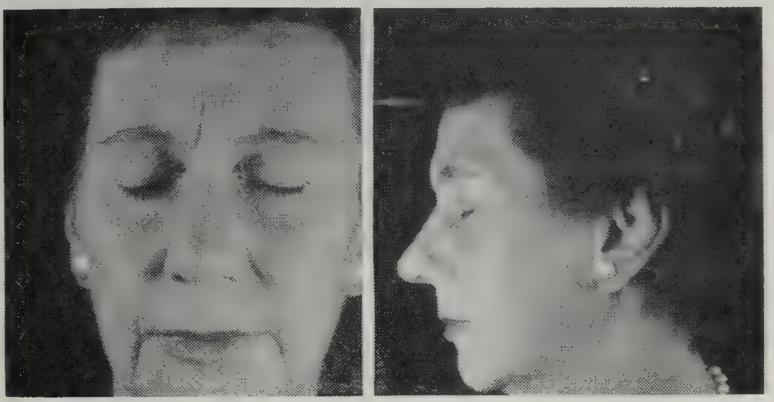

Fig. 14a. One year post reduction. b. One year lateral view post reduction.

The wound of entrance is closed and if the antrum is involved it is debrided and closed after a nasal antrostomy is done.

The destruction of the palate may be so great that it is impossible to close it with local tissue (figure 15b). If it is not feasible to close the oral

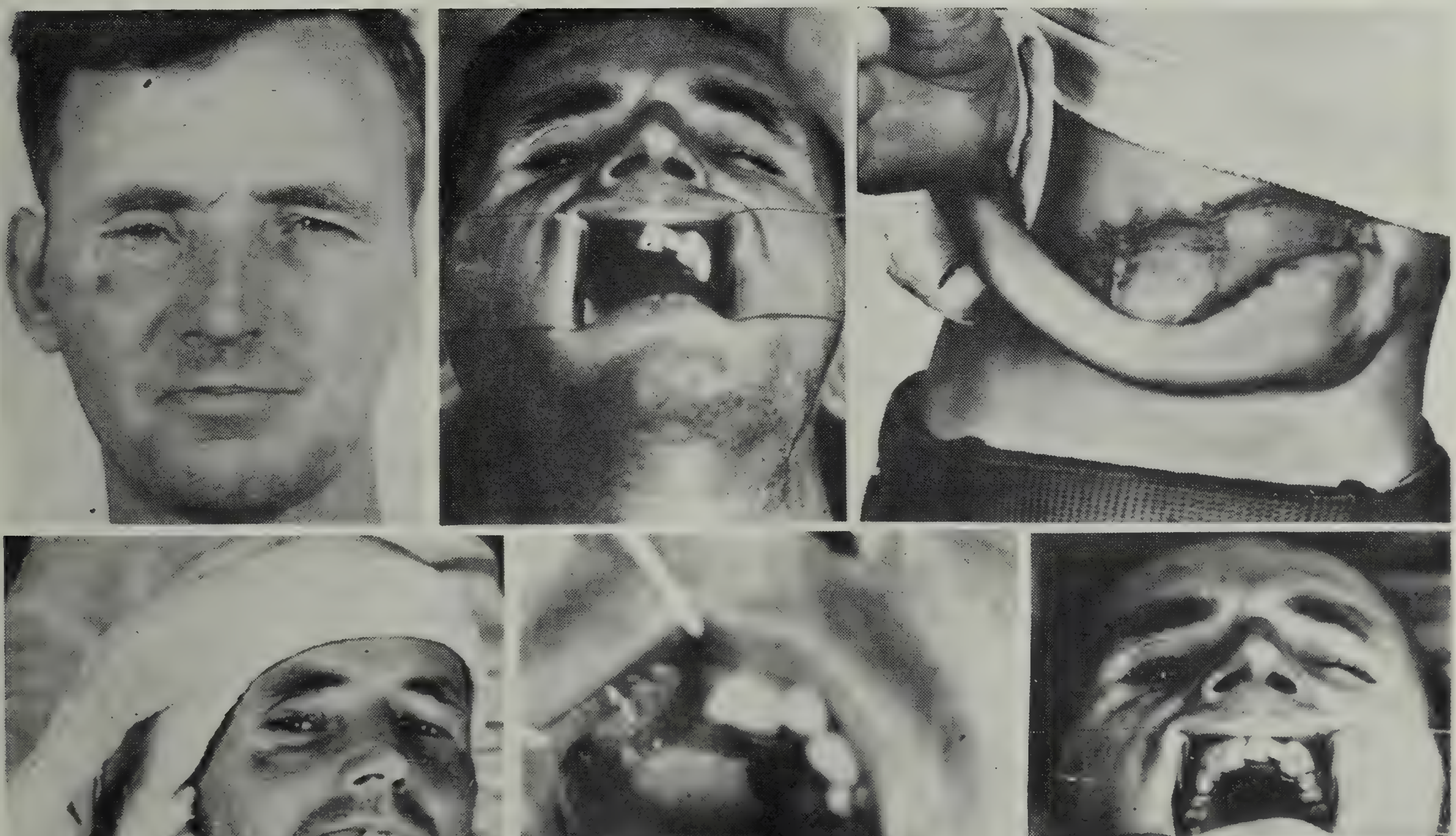

Fig. 15a. Entrance wound of shrapnel which traversed antrum, palate and destroyed part of the mandible. b. Palatal defect. c. Tube pedicle attached to wrist. d. Tube pedicle transferred to the palatal defect. e. Pedicle flap defatted. f. Dental prosthesis in place.

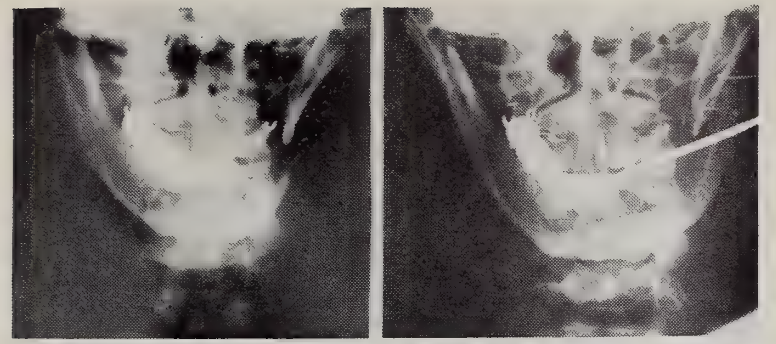

Fig. 16a. Destruction of horizontal ramus of mandible. b. Iliac bone graft to mandible showing interdental fixation.

antral fistula with a dental prosthesis it may be closed with a tube pedicle (figure 15c). After it has been sutured to the wrist it is transferred to the defect in the palate (figure 15d), the fat is then removed (figure 15e), and the dental appliances are constructed (figure 15f).

Construction of the continuity of the mandible is best accomplished after the wound is completely healed, the soft tissue adequate to cover the bone graft and the fragments sufficiently immobilized with an iliac autograft of bone (figure 16).[5]

SUMMARY

A plea is made for the proper supervision of all facial traumatic defects in the emergency wards of the hospitals to prevent the need for secondary operations.

More meticulous care of the wounds should be instituted, such as the use of proper instruments, small caliber suture material, atraumatic handling of tissue and proper debridement, all of which lead to primary healing.

Open reduction of all facial fractures is advocated for more exacting replacement of fragments, producing better cosmetic and functional results.

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BIBLIOGRAPHY

1. Kennedy, R. H., and Blum, L.: The Multiple Injury Patient, Bull. Am. Col. Surg. **42**:107-112, 1957.

2. Kiehn, C. L.: Mucous Membrane Grafts, Am. J. Surg. **87**:715-721; 1954.

3. Campbell, H.: Personal Communication.

4. Robertson, D. C.: The Treatment of Multiple Facial Fractures and Craniofacial Separation in the Patient With Concomitant Injuries, Plastic & Reconstruct. Surg. **18**:367-376, 1956.

5. Kiehn, C. L., and Glover, D. M.: Functional Repair of the Mandible Following Bone Loss From Injury, Irradiation Necrosis or Tumor, Am. J. Surg. **80**:753-761; 1950.

SMALLPOX VACCINATION CLINIC HELD

The Cape Girardeau County Medical Society recently vaccinated more than 4,000 persons against smallpox in a one-day clinic held in Cape Girardeau after a definite case had been diagnosed.

Additional supplies of vaccine had to be rushed in by the Missouri Division of Health as hundreds of adults and children queued up during the day of June 22.

Dr. E. A. Belden, director of the State's Bureau of Communicable Diseases, praised the work of the medical society, the registered nurses and civic groups in handling the program.

The free mass inoculation was touched off by the illness of a 15-month-old child that first was believed to be suffering from chickenpox.

The official count was 4,091, with many persons forgetting to turn in their registration cards as they were inoculated. The clinic was held at the Arena building.

MOTIVES NEEDED BY AGING

Corn liquor and chewing tobacco may contribute to a long life, if the oldster believes they do.

Scientists have discovered that nostrums like this may be evidence of some positive motive for living that is necessary for vigor in old age.

Within motive, a person might be "old" at 35, while with it he might be "young" at 70, according to a special article on aging in the July 27 issue of the *Journal of the American Medical Association.*

The article points out that the population of Americans over 65 is increasing at twice the rate of the over-all population rise.

"Since medical science is largely responsible for this increased longevity, physicians everywhere must bear much of the burden of also prolonging man's span of vigor," the editorial says. "It is a mammoth task, calling for action and planning in many fields beside medicine."

The A.M.A. soon will publish guides to aid state and county medical groups in working with other groups in solving problems of the aged in their own areas.

The A.M.A. committee on aging has agreed that "retirement should not be based arbitrarily on chronological age," but that employment in all age brackets should be a matter of proper assignment of skills.

Our older folks represent an untapped source of "manpower and brainpower that can be turned from an economic liability into a total asset," the editorial added.

EXERCISE MYOHEMOGLOBINURIA

Five male Ohio college students who over exercised recently suffered a mild temporary ailment, resembling a sympton of serious kidney disease, *The Journal of the American Medical Association* reports.

After engaging in strenuous exercise in fraternity hazing or just in attempts to "get into better condition," the appearance of red blood cells in the urine was noticed. It was named "exercise myohemoglobinuria" by Dr. William C. Stahl, Columbus, Ohio, who reported the cases in the July issue of *The Journal.*

Dr. Stahl said it resembled "march hemoglobinuria," so named because reported cases occurred after marching, strenuous walking or running. Only 75 cases of the disease were reported before in medical literature, the first in 1881.

The students, all white, recovered from their illness in a few days without treatment. However, their symptoms suggested they might have had acute glomerular nephritis.

Blood Loss

In Production of Guaiac Positive and Tarry Stools

A Review

JEROME J. STANISLAW, *Senior Medical Student;* WILLIAM T. FITZGERALD, M.D.,
AND WILLIAM A. KNIGHT, JR., M.D., *St. Louis*

MANY TIMES DURING recent years questions concerning guaiac positive and tarry stools have consumed considerable time in discussion. Diversified opinions have been expressed concerning various aspects of this subject, prompting this review of the literature.

We shall not be concerned as to which test for occult blood is most practical or most sensitive. Since we have used solely the guaiac reagent for detection of occult blood it shall be this evaluation to which we will limit ourselves. How much blood is necessary to produce a guaiac positive stool, or a tarry stool is the question we shall try to answer. The tests for occult blood depend mainly on one principle. There are small amounts of peroxidase present in blood. This enzyme when present in feces liberates free oxygen by catalyzing the reaction of hydrogen peroxide to water and oxygen. The free O_2 is carried by hematin in the feces which oxidizes the colorless base to a colored substance producing the positive reaction.[1] On the other hand, if no peroxidase is present and other sources of free oxygen are present the reaction will proceed to completion but much more slowly. Therefore, the element of time must also be considered in the evaluation of the test.

A number of ingestable products have been implicated in producing false positive reactions to gum guaiac. Cowie found that 20 gms. of uncooked beef will produce a guaiac positive reaction.[2] However, cooked meats seldom give a positive reaction.

Johnson and Oliver, in their study, found that 12 gr. of ferrous sulfate given daily to seven patients who previously were tested to be guaiac negative produced stools that were guaiac positive. He found that the stools became positive only after they became "tarry."[3] He contributed the blue reaction to the presence of tannin in the guaiac reagent resulting in blue iron tannate. It is important to keep this in mind when one is treating anemia due to blood loss with ferrous sulfate.

The two products mentioned (meats and iron) form the bulk of material that will produce a false positive guaiac reaction. Many other factors may be excluded by reading a reaction to be positive only if the reaction takes place within the first thirty seconds.

How much blood is necessary to produce a positive guaiac reaction? A complete investigation of this subject was undertaken by Peranio and Bruger in 1951.[4] They conducted their studies in two sections: one group was studied on a restricted diet—no meats for seventy-two hours prior to testing and during the test; the other group was on an unrestricted diet.

On the restricted diet it required 20 cc. of blood to produce a positive guaiac reaction and 5 cc. of blood to produce a reaction with benzidine. On an unrestricted diet they noted guaiac positive stools after ingestion of only 2 to 3 cc. of whole blood.[4]

Schiff et al. found that when patients were placed on an unrestricted diet, two out of fourteen persons gave a guaiac positive stool reaction.[5] Mason and Beltus state that with an unrestricted diet it requires 0.5 to 10 cc. of ingested blood to produce a positive guaiac reaction.[2]

There is a definite advantage in knowing how long the stools will remain positive following a single bleeding episode. It gives the clinician some idea as to whether the patient has stopped bleeding, is continuing to bleed, or whether the patient has re-bled. This study was undertaken by Brudenback and Priddy,[6] and was conducted on males between the ages of 20 and 35 years. The blood used in this study was the patients' own venous blood, citrated and then ingested.

They also gave eight subjects 50 cc. of their own blood for ten days. After the ingestion period was over every stool was collected. Within eight days the stools on all eight were guaiac negative.[6] They did not use the benzidine test because they felt it was too sensitive.

What significance can be placed on the reaction of gum guaiac on the stool? It must be kept in mind that this is a laboratory test and should have no more significance than a routine urinalysis or blood count. The clinical evaluation of a patient is much more significant than a single laboratory test.

In 1949 Hoerr, Bliss and Kauffman[7] presented an interesting study concerning the use of the guaiac test as a screening procedure for the detection of malignancy in the gastrointestinal tract. They based their studies on stool specimens collected from unselected hospital patients. Their opinion was that the guaiac test is a satisfactory

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From the Department of Medicine, St. Louis University School of Medicine, St. Louis.

screening procedure in the detection of occult bleeding, because it is not highly sensitive and, therefore, does not require the use of a meat free diet. They did not conclude that it was a satisfactory screening procedure in the detection of gastrointestinal malignancy. Mason and Beltus also concluded that the guaiac test is applicable to detection of occult blood in unselected patients on a general diet.[2] The sensitivity is such that with an average diet the reaction will be negative in the vast majority of cases.

The significance of the guaiac stool test was brought out well by Holt in his evaluation of sixteen hundred consecutive office records of new patients.[8] Of this group seventy-seven showed guaiac positive stools on the first specimen. Thirty-seven of the seventy-seven originally positive were negative on subsequent examination. These cases were not investigated further. Forty patients, therefore, were positive on two consecutive examinations. Only four of these cases were not suspected of having gastrointestinal disease. Of these four, one was shown to have a cancer of the sigmoid colon, another a duodenal ulcer and the other two multiple polyps of the colon. Therefore, the test was helpful diagnostically in four of this group. In the remaining twenty-seven cases clinically suspected of having gastrointestinal pathology, the guaiac reaction was confirmative.

The test was falsely positive in nine patients and, hence, of no diagnostic value. In only two cases did the test fail to demonstrate bleeding in patients with significant pathology. The margin of error was eleven of sixteen hundred cases.

Again, referring to the study by Mason and Beltus,[2] it gave some idea of the common lesions represented by guaiac positive stools. They found that in an unselected investigation of one thousand office patients on whom guaiac and benzidine studies were done, the commonest lesions were peptic ulcers and hemorrhoids. They concluded that the test was not satisfactory in the determination of malignancy. They ranked their order of benefit in screening of gastrointestinal malignancies as x-ray, proctoscopy and digital examination.

A tarry stool, as defined by Schiff,[5] is applied only to a glistening stool having the same black color as found on a standard paint color chart.

In management of hematemesis or melena it is necessary to determine how severe the hemorrhage is, and whether or not the bleeding has stopped. Questions to be answered are how much blood is necessary to produce a tarry stool and how long will the stool remain tarry?

Schiff et al.[5] were interested in both these questions. In answering the first question they gave citrated venous blood, two to three weeks old, to eighteen patients without gastrointestinal disease. Their results are listed in table 1.

TABLE 1

MINIMUM AMOUNTS OF BLOOD NECESSARY TO PRODUCE A TARRY STOOL

Amount of Blood Administered (cc.)	*No. of Subjects Receiving Blood*	*No. With Tarry Stools*	*No. Without Tarry Stools*
50	7	0	7
75	9	0	9
100	7	4	3
125	3	1	2
150	4	1	3
175	2	1	1
200	2	2	0

From this study it is evident that it requires a minimum of 100 to 200 cc. of blood to produce a tarry stool. These values are higher than those reported by Daniel and Egan[9] in a study comprising a group of ten healthy medical students. They found that tarry stools were produced after the ingestion of 50 to 80 cc. of blood, also utilizing citrated venous blood.

Schiff and his coworkers also investigated the aspect of time in relation to production of a tarry stool after a massive hemorrhage, and how long the stools remain tarry.

From his study it was shown that blood can appear within four hours making the patient's stool entirely bloody. The stools may never become tarry, remaining bloody; or become tarry, as early as twenty hours, depending on the rate of intestinal motility. After the simulated hemorrhage using 1,000 or more cc. of blood, the stools remained tarry as long as five days. Hillsman[10] has shown that whether a stool is bloody or tarry following massive bleeding depends mainly on the length of time the blood stays in the gastrointestinal tract rather than the site of bleeding.

From a review of the literature concerning the subjects of guaiac positive and tarry stools, the following conclusions seem valid:

1. It requires 20 cc. of blood to produce a guaiac positive stool in a patient on a restricted diet.
2. From .5 to 10 cc. of blood are necessary to produce a guaiac positive stool in a patient on an unrestricted diet.
3. Stool guaiac tests cannot be used as a screening measure for gastrointestinal malignancies.
4. It takes 100 to 200 cc. of blood loss in the gastrointestinal tract to produce a tarry stool.
5. Stools will remain guaiac positive from a single episode of bleeding between three to eight days.
6. Following massive bleeding in the gastrointestinal tract the stools will be bloody or tarry depending on the length of time the blood stays in the gastrointestinal tract.

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BIBLIOGRAPHY

1. Kieter, E.: Detection of Occult Blood in Feces, Am. J. Surg. 25:530, 1934.
2. Mason, E. W., and Beltus, F.: Detection of Occult Blood

Surgery of the Acromio-Clavicular Joint

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DISLOCATION OF THE clavicle at either of its two articulations is about one twelfth as common as fracture of the clavicle. Its management, however, is considerably more difficult than is the treatment of fracture of the clavicle. In dislocations, that of the outer end of the clavicle is the most common. Dislocation at the acromio-clavicular joint, fracture involving the acromio-clavicular joint and fracture dislocation are the most frequent causes for operative intervention in the region of the acromio-clavicular joint. Operative procedures on this joint may be indicated for pain when the joint has been involved by tuberculosis, rheumatoid arthritis, old pyogenic infection or when it is the site of degenerative arthritis from an old incomplete dislocation.

The acromio-clavicular joint is a diarthrosis between the acromion and the clavicle, and frequently has an interposed interarticular disk. The capsule is thickened to form the superior and inferior acromio-clavicular ligaments. It is, however, the strong coraco-clavicular ligament that offers stability to this joint. This ligament extending between the coracoid and the clavicle is divided into two components—the conoid ligament posteriorly and the trapezoid ligament anteriorly. In complete acromio-clavicular dislocation or fracture through the outer tip of the clavicle, these are the ligaments whose continuity must be restored if a stable joint is to be expected. Motion in this joint is mainly rotation of the entire shoulder girdle about the distal end of the clavicle; anterior and superior rotation of the glenoid is particularly important in shoulder girdle function.

Acromio-clavicular separation is a clinical diagnosis, with the x-ray being used only to exclude fracture. Dislocation occurs from a downward blow on the point of the shoulder, or a fall in which the tip of the shoulder strikes the ground. The mechanism of injury about the shoulder is important and should lead the examiner to suspect the correct diagnosis. The onset of pain is prompt but usually it is not as severe as in the case of a dislocated shoulder—the common erroneous diagnosis to be made.

Examination reveals swelling and discoloration about the acromio-clavicular joint. The displacement of the clavicle may be either superior or posterior. The posterior displacement and instability are most easily detected by standing behind the patient. Stability is tested by grasping the clavicle in its mid-portion and moving it in an anterior-posterior direction. There is usually little doubt about stability when comparison is made with the normal side. An erroneous diagnosis of dislocation of the shoulder is common when actually there is a dislocation of the acromio-clavicular joint. Tenderness is localized over the acromio-clavicular joint and in the region of the coraco-clavicular ligaments, at the superior edge of the coracoid process. The increase of mobility as compared to the uninjured side is the most valuable diagnostic finding. When there is marked increase of mobility, there is almost always a complete tear of the conoid and trapezoid ligaments which will require operative repair. On the other hand, if the clavicle is stable and the findings are limited to tenderness over the acromio-clavicular joint and the coraco-clavicular ligaments, there usually has not been a complete tear of the conoid and trapezoid ligaments, and conservative management will lead to a satisfactory result. It is important to examine the patient in a sitting or standing position, for if the examination is done with the patient lying in bed it is easy to miss the diagnosis.

X-ray examination is carried out to determine whether or not there is an associated fracture of the clavicle. Weights held in the hand may sometimes increase the distance between the coracoid and the clavicle, and are thus indicated as a permanent record of the displacement (fig. 1). In the posterior dislocation one may see only a wide joint space between the tip of the clavicle and the acromion and, in such cases, an axial view will show the tip of the clavicle to be lying in the hollow of the acromion.

Presented at the Washington University School of Medicine's Surgical Symposium, May 29, 1957.

From the Department of Orthopedic Surgery, Washington University School of Medicine, St. Louis.

Blood Loss—Continued

as a Routine Office Procedure, J.A.M.A. **149**:1526 (August 3) 1952.

3. Johnson, Allen S., and Oliver, Ernest B.: Effect of Ingested Iron on Tests for Occult Blood in Stools, J. Lab. and Clin. Med. **26**:727, 1940.
4. Peranio, A., and Bruger, M.: The Detection of Occult Blood in Feces Including the Observation on the Ingestion of Iron and Whole Blood, J. Lab & Clin. Med. **38**:433, 1951.
5. Schiff, L.; Stevens, R.; Shapiro, N., and Goodman, S.: Observations of Citrated Blood in Man: The Effect on the Stool, Am. J. Med. Sc. **203**:409, 1942.
6. Brudenback, W. C., and Priddy, G. R.: The Duration of Chemically Demonstrable Blood in the Feces Following Ingestion of Whole Blood, Gastroenterol. **26**:469-475, 1953.
7. Hoerr, S. O.; Bliss, W. R., and Kauffman, J.: Clinical Evaluation of Various Tests for Occult Blood in Feces. J. A. M. A. **141**:1213-1217, 1949.
8. Holt, C. L.: The Routine Guaiac Stool Test, New England J. Med. **246**:864-866. 1952.
9. Daniel, W. A. J., and Egan, J.: Quality of Blood Required to Produce a Tarry Stool, J.A.M.A. **113**:2232, 1939.
10. Hillsman, J. H.: The Color of Blood Containing Feces Following the Installation of Citrated Blood at Various Levels of the Small Intestine, Gastroenterol. **15**:131, 1950.

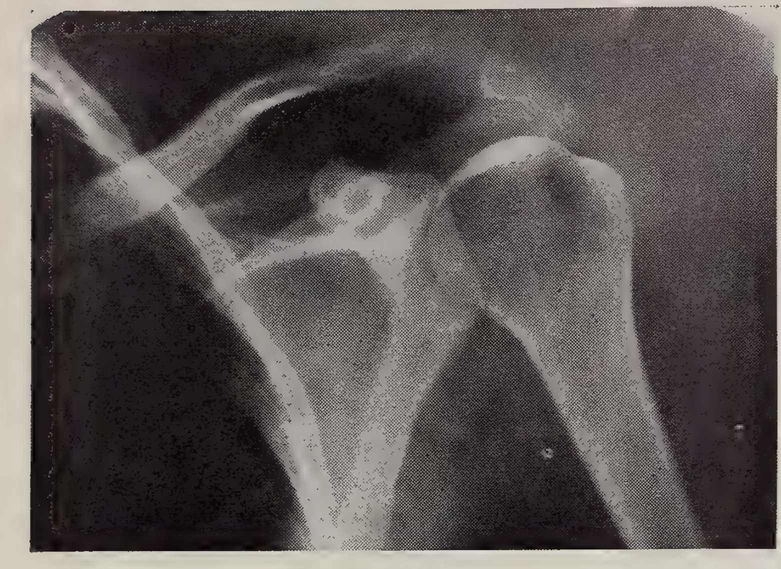

Fig. 1. Dislocation of the acromio-clavicular joint showing wide separation between the coracoid and clavicle as well as the acromio-clavicular joint itself. Many times the diagnosis is not so clearly seen on the x-ray. In posterior dislocation the only change may be slight widening of the acromio-clavicular joint with no increase in distance between the clavicle and the coracoid.

TREATMENT

Acromio-Clavicular Dislocation.—Complete acromio-clavicular dislocation is almost always best treated by means of open reduction and internal fixation. Various methods of adhesive strapping, bandaging and casting have been advocated, but it is extremely difficult to maintain complete reduction for the six to eight weeks required for sound healing to take place. If, however, the dislocation is incomplete, nonoperative treatment is indicated with a Velpeau dressing or a modified "figure of 8" dressing and sling.

The advantage of primary internal fixation in the fresh injury is that an adequate reduction can be maintained while at the same time early motion of the shoulder can be started. Several types of internal fixation are available at the present time.[1, 2, 3, 4, 5, 10, 11, 12] Transacrominal wires or screws are probably the most popular method now but have the disadvantage of not always maintaining complete reduction and of sometimes breaking at the point where they cross the joint. The use of a screw between the clavicle and the coracoid, as described by Bosworth,[2] maintains good reduction but employs rigid fixation of the joint between the clavicle and the scapula.

A method this department has been using for several years is that (fig. 2) of maintaining the reduction with a braided stainless steel wire which passes around the tip of the coracoid process and then through a drill hole in the clavicle.[8] The wire, when properly placed, maintains the reduction well; particularly when there is a significant element of posterior displacement. Furthermore, there is a little play which is desirable if motion is to be started during the early convalescent period.

The wire is easily inserted through a curved incision made between the tip of the coracoid and the acromio-clavicular joint. The coracoid is exposed by splitting the deltoid about 3 to 4 cm. Three strands of No. 22 or No. 24 stainless steel wire are braided and, then, after passing around the coracoid, the wire is passed through a drill hole in the clavicle. The drill hole is made in the clavicle by starting on the superior surface and directing the point of the drill toward the tip of the coracoid process. After reduction, the wire is tied or twisted to maintain the approximation of the torn ends of the coraco-clavicular ligaments.

Postoperatively the patient is kept in a Velpeau dressing for ten to fourteen days. Then a sling is used for another three or four weeks. As soon as the patient is placed in a sling, daily pendulum exercises to the shoulder are started and the patient is encouraged to use the hand and wrist. After eight weeks, the wire should be removed, for by then it has served the purpose of approximating the coraco-clavicular ligaments, and healing should be firm. If left in place, the wire will eventually fragment.

This method of fixation has been used in fourteen cases in which I have either performed or assisted at the operation. The only complication encountered so far is breaking of the wire, but this has fortunately been only after healing was almost complete and no serious loss of reduction resulted. To date the method of internal fixation described has proved to be efficient, and the results have been satisfactory from early open reduction and repair of the acromio-clavicular dislocation.

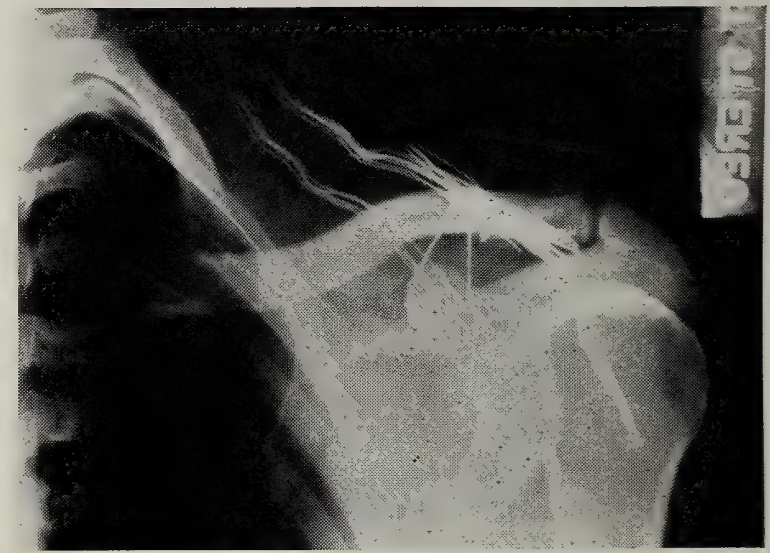

Fig. 2. The same shoulder as in figure 1 after open reduction and internal fixation by means of a wire about the coracoid and through a drill hole in the clavicle. The posterior aspect of the dislocation was well controlled by this method. The multiple oblique lines represent marked sponges in the dressing. The final result was satisfactory.

Fracture Dislocation of Acromio-Clavicular Joint.—This same method of fixation is satisfactory when a fracture of the distal tip of the clavicle is present, with significant displacement. Displacement of the proximal fragment is indicative of a tear of the coraco-clavicular ligaments, and is usually best handled by operative repair. Under such circumstances, it is usually advisable to excise the outer one half inch of the clavicle, since fractures which involve the acromio-clavicular joint frequently leave the joint deformed. Later degenerative arthritic changes develop and a painful joint is the end result.

Non-Displaced Fracture of the Acromio-Clavicular Joint.—Fracture of the tip of the clavicle without significant displacement but with involvement of the joint surface may result from a direct blow to the tip of the clavicle. Such an injury may be painful even after healing has occurred due to irregularity of the joint surface and later to degenerative arthritic changes. Conservative treatment, however, should be instituted by means of a Velpeau dressing until the acute pain has subsided. After ten days a sling should be used and pendulum exercises to the shoulder should be started. If the joint remains painful after healing has occurred, it may occasionally be necessary to resect the outer one half inch of the clavicle. Care must be exercised, however, in removing the outer end of the clavicle so that the continuity of the coraco-clavicular ligaments is not destroyed, for this would result in instability of the outer end of the clavicle.

Untreated Acromio-Clavicular Dislocation.—When an acromio-clavicular dislocation has remained unreduced for several months or longer, a painful joint usually is the result. In active individuals a painful acromio-clavicular joint may be quite disabling, and the conservative treatment of rest, heat, salicylates and intra-articular hydrocortisone may not give satisfactory relief of symptoms (fig. 3). Reconstruction of the coraco-clavicular ligaments is usually necessary to regain the stability of the outer end of the clavicle. Bunnell[10] has described a method of weaving fascia to repair the ligaments; however, we have found it easier and quite effective to use the previously described wire as internal fixation. In these cases a strip of fascia lata should also be used as a supplement to the ligamentous reconstruction. A simple loop of fascia about the coracoid, and then through a second drill hole in the clavicle, works well. The wire should be removed in eight weeks (figs. 4 and 5).

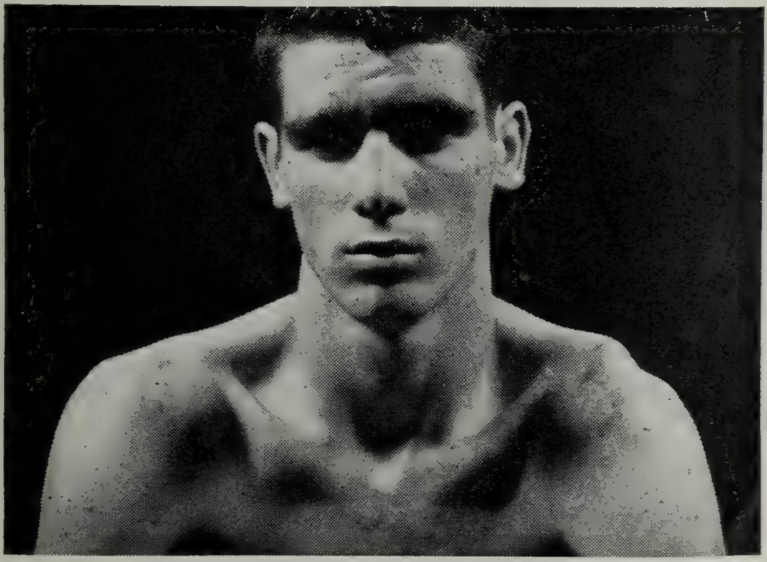

Fig. 3. Clinical appearance of complete left acromio-clavicular dislocation ten weeks after a football injury. Injury on the football field is one of the most common causes for acromio-clavicular dislocation. The patient had pain on motion of the shoulder girdle.

When the repair has been delayed, the outer one half inch of the clavicle should be removed as described by Moore and by Mumford.[4, 5] Thus, in an old untreated case, ligamentous reconstruction with an associated arthroplasty of the joint is the procedure of choice. When the condition is seen two weeks after injury, it is best to postpone operation for six to eight weeks so that the extensively damaged tissue, with its subsequent reaction and increased vascularity, will have a chance to subside. Then if the joint is painful it should be treated by resection of the outer one half inch of the clavicle, and coraco-clavicular ligament reconstruction should be done.

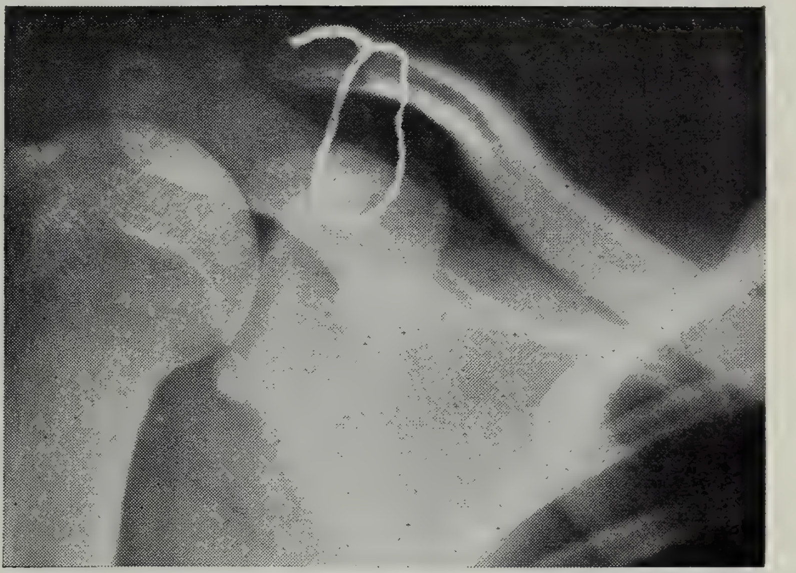

Fig. 4. X-ray appearance of case in figure 3 following open reduction, internal fixation, ligament reconstruction with fascia lata, and resection of outer half inch of the clavicle. Pendulum exercises were started at three weeks.

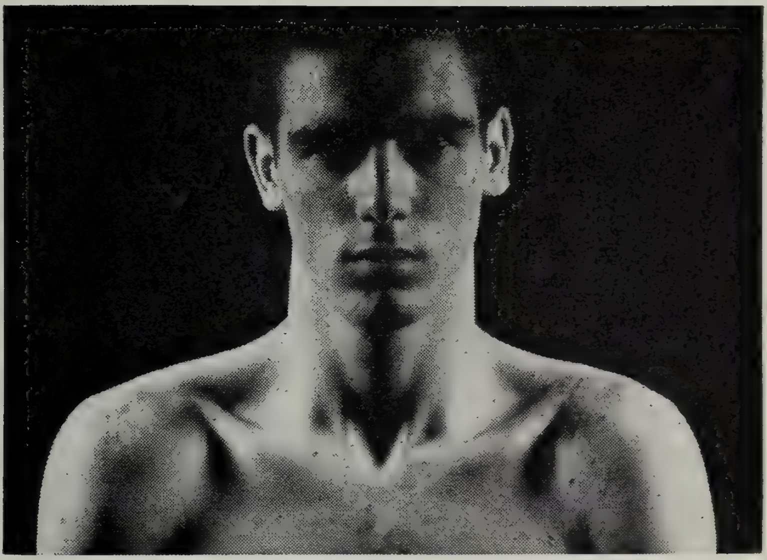

Fig. 5. Final result four months after repair. The wire has been removed. The clinical appearance is excellent and the patient had no pain. There was a full and painless range of motion of the shoulder girdle and the shoulder joint.

Painful Acromio-Clavicular Joint.—The acromio-clavicular joint may be involved by degenerative arthritis, rheumatoid arthritis, pyogenic infection and tuberculosis (fig. 6), and these may be a source of pain in the shoulder region. The degenerative changes may be related to an old minor injury, but this is not necessarily always the case. Oppenheimer[6, 7] has stated that degenerative changes seen in the x-ray are about eight times as common in the region of acromio-clavicular joint as are degenerative changes in the shoulder. Though these x-ray changes may be common in the acromio-clavicular joint, it certainly does not appear that they are so commonly the source of pain.

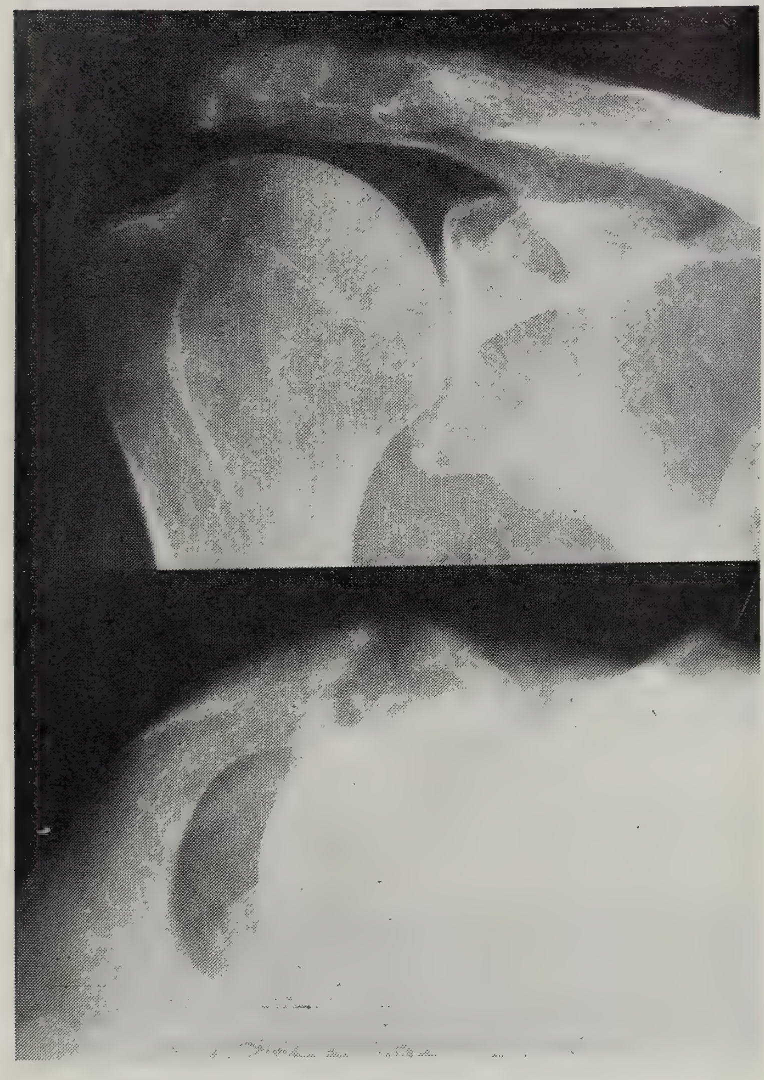

Fig. 6. An elderly white male with pain in the region of the shoulder. X-rays were originally considered to represent degenerative arthritis; however, upon aspiration of the joint preparatory to hydrocortisone injection, cloudy fluid was obtained. Routine culture of the fluid was negative, but guinea pig studies proved this to be a tuberculosis arthritis of the acromio-clavicular joint. (Courtesy of Dr. Marshall B. Conrad, St. Louis.)

When the acromio-clavicular joint is the source of pain, there is usually well localized tenderness over the joint. Motion is painful in the later stages of abduction, i.e., when rotation of the scapula begins about the distal end of the clavicle. Calcification, and at times ossification, in the coraco-clavicular ligaments are found when there has been an old injury. As pointed out by Soule,[9] such changes in the coraco-clavicular ligaments are common following trauma; however, its presence does not seem to interfere with function, nor does it appear to cause pain (fig. 7).

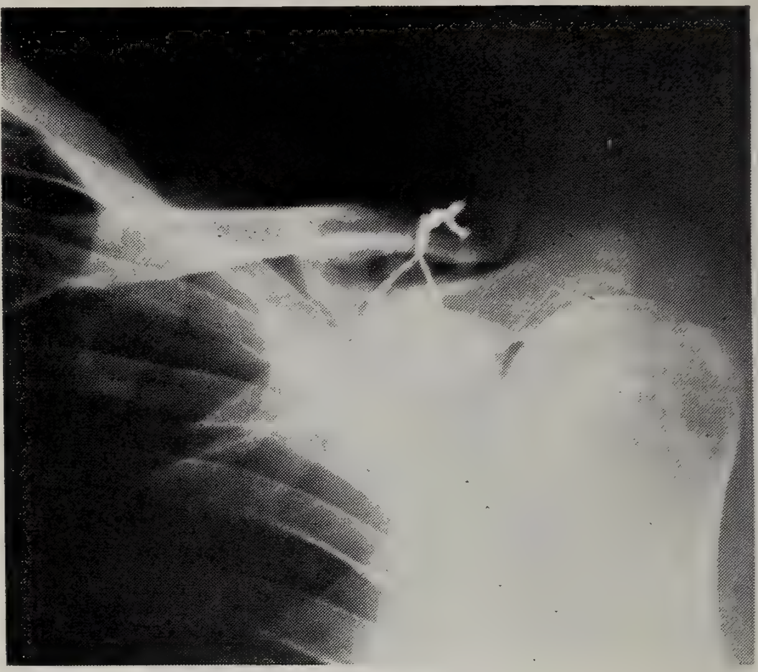

Fig. 7. X-ray of acromio-clavicular dislocation approximately one year after repair. The patient declined to have the wire removed. The functional result was good at the time of this film in spite of the marked ossification of the coraco-clavicular ligaments. Such calcification and ossification are common following injury to this ligament.

The pain from the rheumatoid or degenerative joint can usually be controlled with conservative measures (rest, heat, salicylates and intra-articular hydrocortisone). However, when they fail, resection of the outer one half inch of the clavicle usually gives prompt and gratifying relief of pain. Pyogenic infection and tuberculosis usually require a more radical excision of bone. Arthrodesis of the acromio-clavicular joint results in considerable disability and is almost never justified.

SUMMARY

The most common indication for operation on the acromio-clavicular joint is dislocation and, if at all possible, early primary operative repair is indicated. When the joint is painful, resection of the outer one half inch of the clavicle is helpful, and should be coupled with reconstruction of the coraco-clavicular ligaments when necessary.

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BIBLIOGRAPHY

1. Bloom, F. A.: Wire Fixation in Acromio-Clavicular Dislocation, J. Bone & Joint Surg. **27**:273-276, 1945.
2. Bosworth, B. M.: Acromio-Clavicular Dislocation, Ann. Surg. **127**:98-111, 1948.
3. Bosworth, B. M.: Complete Acromio-Clavicular Dislocation, New England J. Med. **241**:221-224, 1949.
4. Moore, M., Jr.: Acromio-Clavicular Joint Injuries—Pathology and Operative Treatment, South. Surg. **14**:423-429, 1948.
5. Mumford, E. B.: Acromio-Clavicular Dislocation—a New Operative Treatment, J. Bone & Joint Surg. **23**:799-802, 1941.
6. Oppenheimer, Albert: Arthritis of the Acromio-Clavicular Joint, J. Bone & Joint Surg. **25**:867-870, 1943.
7. Oppenheimer, Albert: Lesions of the Acromio-Clavicular Joint Causing Pain and Disability of the Shoulder, Am. J. Roentgenol. **51**:699-706, 1942.
8. Orofino, C. F., and Stein, A. H., Jr.: Operative Treatment for Recent and Complete Tears of the Coraco-Clavicular Ligaments, Am. J. Surg. **85**:760-763, 1953.
9. Soule, A. B., Jr.: Ossification of the Coraco-Clavicular Ligaments Following Dislocation of the Acromio-Clavicular Articulation, Am. J. Roentgenol. **56**:607-615, 1946.
10. Speed, J. S., and Smith, H.: Campbell's Operative Orthopedics, 22nd Ed., St. Louis, 1949, C. V. Mosby Co.
11. Tourmey, J. W.: Surgery of the Acromio-Clavicular Joint, Surg. Clin. N. America 29:905-912, 1949.
12. Urist, M. R.: Complete Dislocations of the Acromio-Clavicular Joint, J. Bone & Joint Surg. **28**:813-837, 1946.

Case Report

Semitendinosus Transfer

For Gastrocnemius-Soleus Paralysis

RONALD M. BUCK, M.D., *St. Joseph*

THE HISTORY of tendon transfers about the foot, ankle and knee was well reviewed by authors Broderick, Reidy and Barr,[1] and by Kuhlmann, in 1952.[2] After further review of the literature it is evident that little new can be added. Gucker, in his discussion of Kuhlmann's report in 1952, pointed up a difficult problem which not infrequently will plague all who try to help the paralyzed foot by performing tendon transfers. At this time he referred to the patient with a drop foot and weak to paralyzed gastrocnemius-soleus, with the action of only the peroneal muscles being present. It was pointed out that if the peroneal is used as a dorsiflexor the patient may develop a calcaneus foot; therefore, it is best to transfer the peroneal to the os calcis, as the calcaneus foot is difficult to correct.

Many reconstructive bone procedures have been used on the foot when sufficient muscles for transfer are not available.

It is the purpose of this paper to present a new type of tendon transfer for paralyzed or weak gastrocnemius-soleus, which may free other muscles to be used as dorsiflexors. Review of the literature has failed to reveal any reference to such a procedure.

CASE REPORT

A 12 year old white male who had had acute anterior poliomyelitis at the age of 6 was first seen four years after the acute onset. Examination revealed paralysis to be confined to the muscles below the right knee. All muscles below the knee were paralyzed except the peroneus longus, peroneus brevis and extensor digitorum longus. The problem presented was, therefore, needing to obtain dorsiflexion and plantar flexion using only the peroneals and extensor digitorum. The usual bone and tendon operations were considered but discarded in favor of the procedure which follows.

On July 27, 1955 a triple arthrodesis was performed. Parental consent for the operation was finally obtained, and on October 9, 1956, the procedure outlined (fig. 1) was carried out. The gastrocnemius was split longitudinally and the medial half detached from the os calcis. This free portion of the tendo achillis was directed proximally through the medial portion of the paralyzed gastrocnemius muscle (fig. 2). A second incision (fig. 3) curving over the medial side of the popliteal space was made, and, through this incision, the tendon of the semitendinosus was severed from its attachment to the tibia and freed proximally.

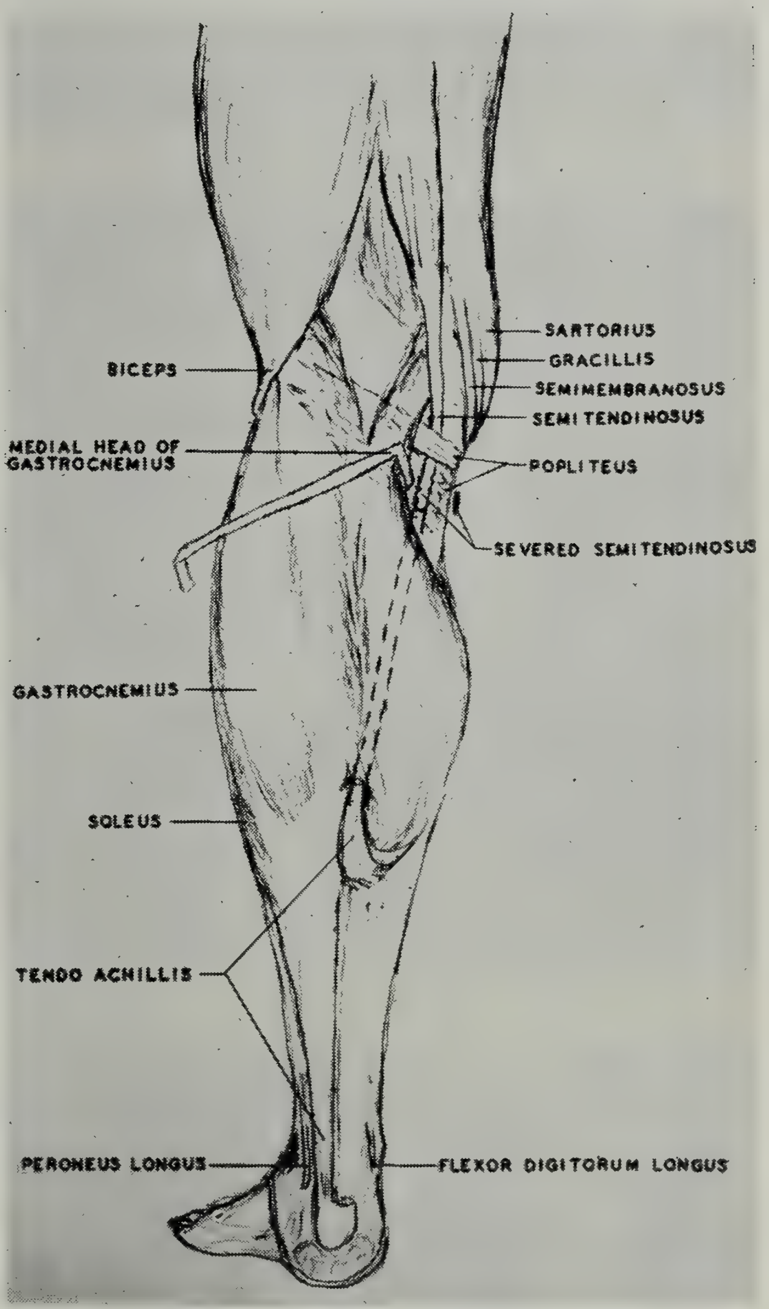

Fig. 1.

By reflecting the medial border of the medial head of the gastrocnemius laterally (fig. 1), the belly of the popliteus muscle was exposed. In this case the popliteus showed evidence of having been paralyzed; however, its exposure was planned, for a portion was to be used as a pulley. The semitendinosus tendon was passed beneath the proximal one half of the popliteus muscle (figs. 1 and 4). Figure 5 shows the direction of pull and length of the transferred semitendinosus tendon in the forceps to the left. The amount of overlap was approximately one inch, with

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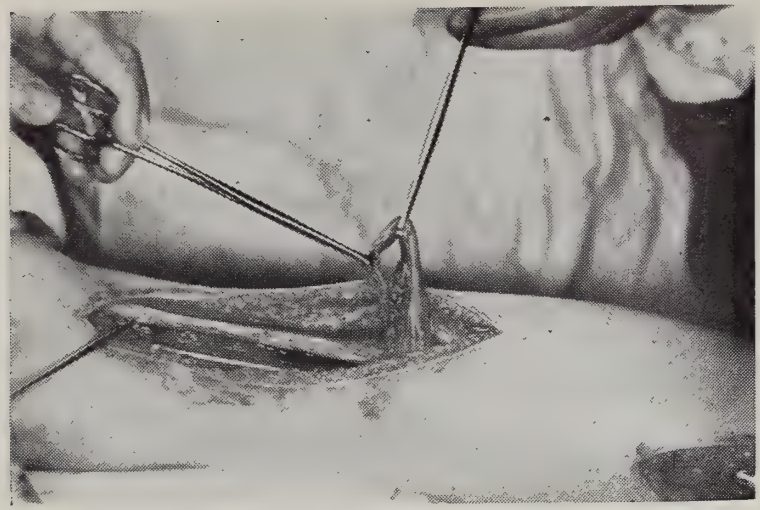

Fig. 2.

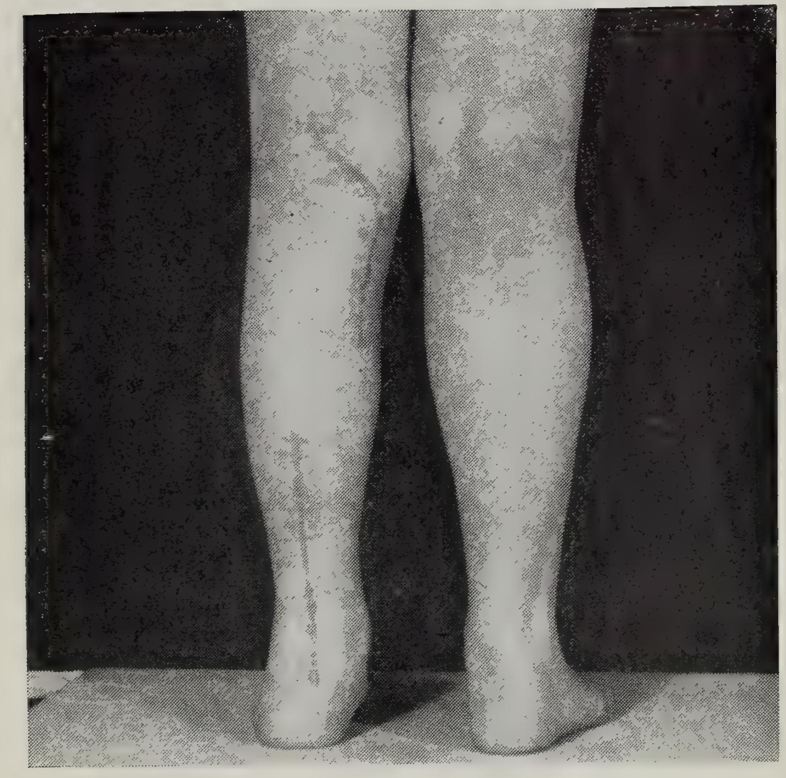

Fig. 3.

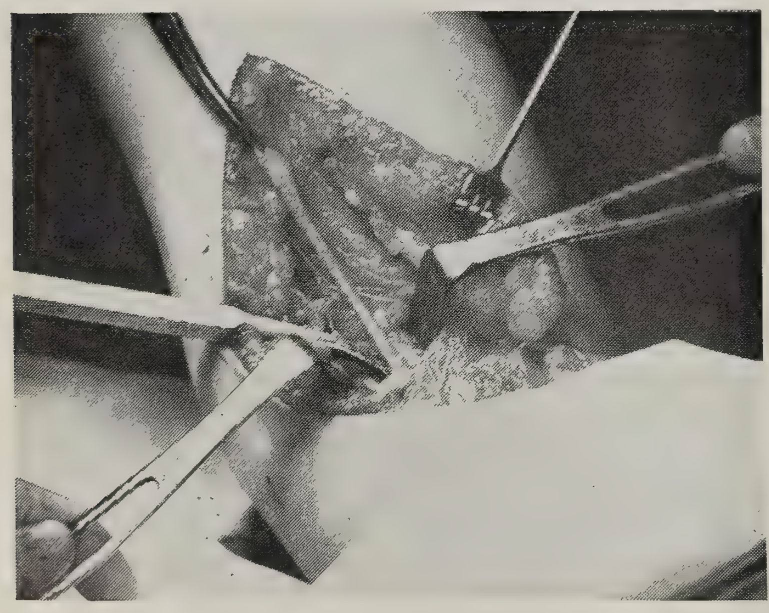

Fig. 4.

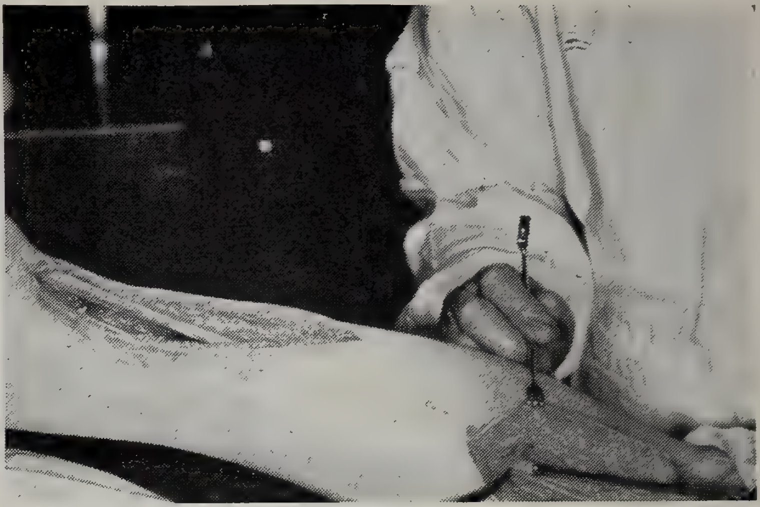

Fig. 5.

the knee flexed 30 degrees and the ankle placed in complete plantar flexion without force. In this position the transferred tendons were sutured with interrupted black silk. Double O chromic catgut sutures were used about the tendo achillis, where it had been reversed on itself at the junction of the tendon and the paralyzed gastrocnemius muscle, in order to strengthen the area and prevent stretch at this point. The tendon sheath about the unattached portion of the tendo achillis was closed with triple O plain catgut, and the skin closed with wire. A long leg cast was applied holding the knee in 30 degrees of flexion and the ankle in complete plantar flexion.

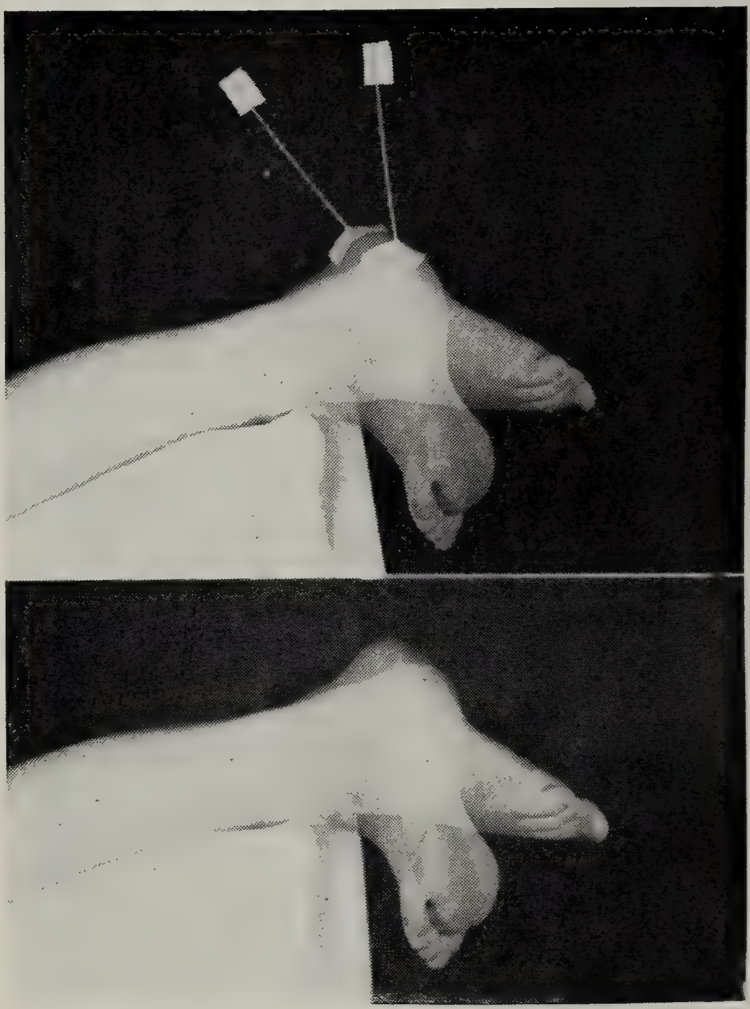

Fig. 6.

The cast was removed in three weeks, and reeducation of the transferred semitendinosus was started in the Hubbard tank. Weight bearing was started with crutches at the end of six weeks from the time of surgery. Complete freedom was accomplished at the end of eight weeks. At the time of this report the follow-up period has been more than four months. The amount of active motion without weight bearing is shown in figure 6.

DISCUSSION

At the time of this report, this patient, with complete paralysis of the gastrocnemius-soleus muscle, has much better push off power, or plantar flexion, than one could anticipate with the transfer of the peroneal muscles to the os calcis. The power developed to date is better than one can obtain when both the peroneus longus and posterior tibial are available for transfer to the os calcis.

The semitendinosus is an ideal muscle to use as a plantar flexor, as the line of pull is correct and the action of the muscle, namely, that of a flexor, has been preserved.

The procedure as outlined gives a strong tendon transfer and, by using the popliteus as a pulley, bowstring across the popliteal space is prevented.

SUMMARY

1. A new procedure for tendon transfer to the os calcis for paralyzed gastrocnemius-soleus has been presented.

2. After only four months the action of the transferred semitendinosus was stronger and the range greater than with the usual procedures used in complete paralysis of the gastrocnemius-soleus.

3. This case is presented at this time so that those with similar difficult problems may consider its use.

902 Edmond Street

BIBLIOGRAPHY

1. Broderick, T. F., Jr.; Reidy, J. A., and Barr, J. S.: Tendon Transplantations in the Lower Extremity, J. Bone & Joint Surg. **34**:909-914 (Oct.) 1952.

2. Kuhlmann, R. F., and Bell, J. F.: A Clinical Evaluation of Tendon Transplantation for Poliomyelitis Affecting the Lower Extremities, J. Bone & Joint Surg. **34**:915-926 (Oct.) 1952.

WINNING AGAINST TRACHOMA

Control work carried on by Missouri has reduced active trachoma "practically to the vanishing point," Dr. Henry M. Hardwicke, acting director of the Division of Health, has announced.

An out-patient clinic will be maintained at the Missouri Trachoma Hospital in Rolla to keep the disease under control. The 65-bed hospital, constructed in 1937, once operated at capacity in fighting the disease. Its excess facilities will be put to other uses.

Dr. Avery A. Drake of Rolla will conduct the trachoma out-patient clinics at the hospital two days each week. He has been working with the state to put down the disease in the so-called trachoma belt south of the Missouri river.

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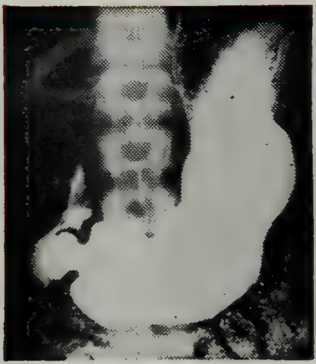

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Special Article

Citizen-Doctor

THOMAS H. ALPHIN, M.D., *Washington, D. C.*

THE RECOGNITION of the special duty of the physician as a citizen goes back many, many centuries, at least 3,000 years, to the beginning of civilized history. The realization of this special duty of a physician as a citizen found expression in the early medical professional organizations founded in ancient Greece. Under the protection of Hippocrates, the physicians of Greece accepted in the famous oath those special responsibilities as professional men and, recognizing the vulnerability of the patient in the hands of an unscrupulous practitioner, added to it a code of professional ethics. Professional codes of ethics have existed in one form or another ever since. General principles of integrity, honesty, humility and responsibility have characterized all of the good ones, and today's physician can find wisdom and guidance in the Hippocratic Oath, the Galenic Oath, Percival's Code and, the Code of Ethics of the American Medical Association.

The professional responsibility assumed by the physician in the various codes is not, however, the whole story. There have been many physicians who have recognized a broader responsibility as men of character whom Emerson said must act as the conscience of the society to which he belongs. Rather than go back into ancient history to develop this point let us rather confine ourselves to the relatively recent events occurring in this part of the Western hemisphere in the last two centuries. In 1776 a physician, Joseph A. Warren, who had a love of liberty and a will to fight for it, assumed civic leadership by taking command of rebellious colonists at Bunker Hill and was killed in the ensuing battle. On July 4, 1776, five physicians assumed leadership in civic affairs by signing the Declaration of Independence, with that group whom Benjamin Franklin said must hang together or surely they would hang separately.

Since then some 350 physicians have accepted civic responsibility by serving in the U. S. Congress: thirty-six have been Senators and more than 300 have served in the House. Twenty-seven physicians were members of the Continental Congress. The State of Missouri has supplied ten physicians to the U. S. Congress. Among these were Dr. John Bull, who served in the House from 1833 to 1835, and Dr. John E. Hutton who served in the House from 1885 to 1889 and practiced law and medicine at the same time. Also Dr. Alexander M. Dockery was Missouri's governor at the end of the 19th Century.

Many in this country tend to be blasé about such things, adopting a "let George do it" or "so what" attitude. The physicians in this country can no longer afford to scorn their civic duty and duck their responsibilities to be part of the federal government. Let's take a look at the amount of your money that is being spent for medical care and research in your profession. What is the amount proposed for 1957-1958? It is three billions of dollars, more than 10 per cent of the non-defense federal budget and over 25 per cent of the total medical budget of the whole country, including all costs, physicians' fees, hospital bills, drugs, hot water bottles—the whole ball of wax. And when the state and local government spending is added to this amount it is almost double—nearly one half of all medical costs are paid for with tax money. Six billion dollars a year total, half federal, half state and local, and amounting to half the nation's entire medical cost!

Now would you like to know how this largesse is distributed, who gets it, how they get it, and, most important, why they get it? Let's not bother with the small fry, let's just study the big three departments which consume so much so readily. They digest dollars at the rate of six and one half million dollars a day, or a quarter of a million dollars per hour, nearly $75.00 every time a clock ticks.

The largest mouth of the Terrible Trio is that of the Veterans' Administration. Eight hundred and twenty-five million dollars was authorized and is being spent this year. Six hundred and nineteen million dollars of this is to provide inpatient care at VA hospitals and two thirds of this amount, roughly four hundred million dollars, is for nonservice connected care—care not related in any way to injury or disease suffered while in uniform. The next big mouth is the other twin of Mars—the Department of Defense—seven hundred and ninety millions of dollars authorized and being spent in 1957. Split relatively evenly among the three services and providing $300 a year for each uniformed soldier—men and women in the prime of life—the healthiest Army in the world—it ought to be! The health care costs of the average citizen are less than one third of that, including the very young and the aged. The final appetite is that of

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Director, American Medical Association Washington Office, Washington, D. C.

Presented at the 98th Annual Session, Missouri State Medical Association.

the Department of Health, Education and Welfare, with seven hundred and seventy-three million dollars authorized in 1957—but strangely enough they are not going to be able to spend all of it.

This Health, Education, Welfare money is being spread about a bit: $126 million for Hill-Burton; $217 million for National Institute of Health; $161 million for Public Welfare and Medical Care; $45 million for Water Pollution Control—this is a new one; $48 million for Indian Health, and $41 million for Hospitals—mostly to provide free care for merchant seamen. The rest in driblets of up to twenty-three millions for this and that.

With the begining of increased vendor payments to OASI benefits, the medical care expense of the federal government will be increased by possibly as much as one hundred and fifty million dollars a year beginning July 1, 1957, this money to be matched by the states for a total of three hundred million dollars a year.

Physicians may be interested in knowing how many people today are entitled to some degree of medical care from the federal government at no cost to the individual concerned. The figures are rather startling. The largest group numbers twenty-two million, five hundred and ninety-nine thousand living veterans, all of whom have the right to present themselves at a Veterans' Administration hospital and, after filling out certain forms, if they state they cannot afford to pay for the care they need (and the Veterans' Administration is prevented by law from going behind this statement), they may receive care for any illness or injury they may have. It is interesting to note that one hundred and eleven thousand, five hundred and forty patients was the average daily bed census in 1956 and at least two thirds of these were non-service connected. The next largest number is approximately five million two hundred thousand military personnel and their dependents. There are almost as many, five million, one hundred thousand, public assistance recipients. There are three hundred and seventy thousand Indian and Alaska natives entitled to federal medical care and three hundred thousand beneficiaries of the Public Health Service. Two hundred thousand of these are merchant seamen who are entitled to free medical care if they have served as much as ninety days aboard ship and within sixty days prior to admission, except that they may be re-admitted at any time for care of a previously authorized disease or injury. This is a total of thirty-three million, five hundred and sixty-nine thousand persons. Legislation currently proposed would provide for partial federal payments for sickness and injury of federal employees and their dependents, about seven million in addition, which would make a total of nearly fifty million people entitled to free government care to some degree. That is nearly one in every three.

Now what can you, the average physician, do to live up to this civic duty and responsibility that I am attempting to point out? I do not think the time has come for secession or a new Declaration of Independence. We from the South tried the former once unsuccessfully and to a large extent any tyranny involved is tyranny from within and can be gotten at without schism. The United States of America is a personification of the doctrine of democracy based on individual liberty. Certain philosophers, notably Alfred North Whitehead, would add to this preservation of individual freedom, the relief of the "misery of the masses." Certain people have taken hold of the latter concept and with misdirected zeal would relieve our "miserable masses" by a process of removing incentive by leveling opportunity—perhaps with the idea of an even distribution of misery and no chance for the individual to do anything about it.

The answer to the problem is simple. Each physician must assume his proper position in a democratic society. Physicians have prepared themselves through long training to understand and appreciate medical problems. The socio-economic problems of medicine which the physician previously could easily understand because he understood the individual patient and his family, have now become highly complicated due to many factors which seem to rise automatically in a highly complex civilization. The closer people live to each other and the more interdependent they become the more their problems, including medical care, become a mass problem rather than individual problems. Perhaps physicians have been slow to recognize this fact. Certainly many of the solutions which have been devised have been devised without much interest on our part and in many instances without our approval. It has been well said that the citizen who will not interest himself in politics at the level of the primary will be at the mercy of those who do.

I certainly do not pretend to be a classical Greek scholar, but I have been much impressed with the origin of a familiar word in the English language. Not only is the origin interesting but a definition which was accepted between its origin and its present meaning in the language is also interesting. How many people in this audience know what the Greek word was for a private citizen who did not interest himself in politics? (Remember this was the language of a people who had a democratic form of government.) The original word the Greeks had for a person who would not interest himself in politics was "idiot," and it later came to mean a professional fool—of course in the sense of the word jester—but I am afraid that most of us at one time or another could have put on the cap with the bells.

There is nothing sinister or mysterious about political representation at the national level. The right to petition Congress is a right guaranteed to the citizens by the Constitution. Furthermore, to take an active, alert interest in lawmaking is one of the obligations of citizenship. From a practical standpoint, Congress could not enact sound laws, it could not function effectively at all without the advice and guidance of qualified outsiders. To operate this vast and intricate country we have developed a highly complicated network of controls and principles. As a result, no single group of men—regardless of their integrity and ability—could, from their own knowledge, write the rules all of us may live by.

So there are Washington representatives, and everyone who appears before a congressional committee as a witness, everyone who supplies Congress with information, everyone who gives his congressman his views on legislation—everyone who thus exercises his constitutional right is, whether he knows it or not, engaged in lobbying. At worst he may be impelled by purely selfish motives—he or his group want a special advantage that can be translated into dollars for them. Many other persons petition Congress merely to encourage it to stand fast and not give way to pressures considered to be bad for the country.

How is it done?

The formal presentation at a congressional hearing lays down before the Committee concerned with the bill—before the entire committee—your carefully prepared and documented arguments. Your testimony will be printed in the committee record, and therefore made available to every Congressman or Senator. You have no assurance he will read it—but it is there anyway. Also, what your witnesses say may be worth a news story that winds up as a few paragraphs in newspapers all over the country. And, you have the opportunity to make some further use of this testimony in your own publications or pamphlets.

Another method of presenting one's views through a Washington lobby is to furnish technical assistance to congressional staff members. Officials of an association, men who are experts in a particular field of legislation, often are invited by committee staffs to work with them in giving final form to a bill that will be "fair and beneficial to all." To the extent that they have the authority, most committee staffs are also anxious to make the bill satisfactory to those people who will have to live with it.

Sometimes a great deal can be accomplished in dealings of this nature, sometimes nothing at all. Many staff personnel are influential, but a disadvantage is that you are not negotiating directly with the committee members, the people who make the decisions.

When an issue is current before a congressional committee, Washington representatives confer with key committee members, presenting pertinent facts on controversial points. Occasionally they can modify the opposition's views, and sometimes it is necessary to rekindle enthusiasm among friends on the committee. One must never forget that individuals representing the other point of view also are contacting committee members.

When a bill has been reported out of committee, the final bill and the committee report will be studied by the Washington representatives. If there are still areas of disagreement, representation may be made to congressmen other than committee members who may have an interest in the bill to see if it can be amended on the floor.

That is what goes on in Washington. Our congressmen will listen to an honest argument properly presented, but they act largely on what they hear from their constituents. Without "action back home" any efforts in Washington largely would be wasted. And if the individual doctor back home is to be effective with his senators and representatives he had better use just as much tact and just as much logic as he would in Washington.

People in Congress have come to discount the blizzard of letters blowing in on the same day and carrying exactly the same message; obviously some group told the senders exactly what to say and when to say it. The same is true of most petitions. The congressman realizes that most people will sign a petition merely out of deference to its bearer and is not impressed because he knows the letter writer or petition signer was not enough concerned to speak his own mind.

The doctors who contact their national legislators should keep in mind two important facts. First, among the groups regularly dealing with national legislation, the medical profession has the rare distinction of not asking anything for itself; in its basic policy decisions the profession is guided by what is best for the patient. You do not have to have any hesitancy about speaking up because you are speaking as a citizen, not as a self-seeker. Second, by nature of your training and your profession you should be a leader in your community, whether or not you recognize the fact. You are respected and you can be influential, and if you do not make an impression on the legislator you contact, the fault may lie with you.

Here are some pointers recommended by doctors who have been the most influential with their national lawmakers. While generally applying to direct, personal visits, the principles remain the same whatever the contact medium.

1. You have to know what you are talking or writing about. Sometimes this means hours of study, using bills, committee reports, information supplied by your national or local organization. It may be that your representative is interested in other legislative fields and knows little or nothing about this particular subject—but you cannot take that chance. He may have questions that will make you squirm.

2. You have to be convinced yourself. If your interest is only lukewarm, you are not going to build up any steam in anyone else.

3. Be yourself. When you have the subject well in hand, let what you say or write be yours, not mouthings of a few phrases you have memorized. Use your own words, your own slang; pick out the arguments that have the greatest impact on you, the points you can make with conviction.

4. Be courteous and respectful. Anyone deserves courtesy, and members of Congress merit respect, regardless of their political views. They are the citizens of your community who have been selected as its representatives in the Congress of the United States. Give them their proper title unless you have been on a first name basis for a long time. Remember how you feel when someone misses your title of "Doctor."

5. Do not be a bore. Make a simple, brief argument, then stop. Be specific; if you are for something say so; if opposed, go directly to your reasons. That may be enough. If not, you can sense how much deeper he wants to go into the subject.

6. As far as possible, concentrate on the local aspects. Tell your representative what the bill would mean to you, your patient, to the other doctors in his state or district, what it would mean to the general public, the people he represents.

7. Do not stay in hiding until you want to ask for something. Be appreciative, thank your congressman for the right votes, compliment him on his better speeches, praise his secretary and staff if they merit it. Make an effort to drop him a note or say hello regularly.

8. Do not look on "home town contacts" as a one-shot assignment. You will be more valuable and effective the longer you continue at it; you will learn more about trends in legislation—and what is just as important, more about how to approach the senators and representatives. The doctor who trains himself in this field will find his avocation interesting and rewarding.

9. Be reasonable. Ask your representative to do only the things that are possible, and listen when he tells you some of the problems he might face on the issue.

10. Do not let the correspondence or conversation melt away into vapor. Terminate on something definite "Now, Mr. Senator, your position is that . . ." not, "Well, that seems to do it." You should get a definite indication as to his stand; you have told him where you stand. It could be a pledge to vote your way, it could be a promise to give the question more study, it could be a flat refusal. If the answer is not yes, nor a flat no, make it plain that you are going to see him again and that perhaps some of the other doctors will contact him; do not stop trying too soon.

11. Be wary of the agreeable phrases that do not mean a thing. Your representative has to be an expert in replies like: "You've got an interesting point there . . . I can see this is pretty important . . . That puts a new light on it . . ." Perhaps one of these expressions is the best you can get out of him, but do not carelessly interpret that to mean you have convinced him. If you do, you will have a lot to explain to the other doctors later.

12. Never threaten political recrimination. Respect the congressman's right sincerely to hold an opposite view. Nothing crystallizes opposition more than intolerance. Remember that you may have to approach him later on another issue.

Finally, do not be deterred from an active interest in your national government by the enemies of the medical profession who attack us for availing ourselves of our constitutional right to be heard before the Congress. Do not falter at the cry of dirty politics. Remember, politics become corrupt only when the citizen loses interest in it.

In my last appearance in this city I was asked whether I thought the present trend must lead inevitably to socialized medicine. I do not think there is any question whatsoever that it could do so. Nor do I think there is any question whatsoever that it need not do so. The physicians in this country can prevent the development of a socialized or federalized medicine that would be detrimental to patient care and to the best interests of a democratic state, but they can only succeed in doing this if they will assume the leadership and the responsibilities for the problems which our present high state of civilization presents. We must face up to the problems that lie within our own profession, problems dealing with hospitals, specialization, prepayment plans, catastrophic insurance, inter-professional relationships and many others. We must also put our best efforts to solving the problems that have to do with the interrelations between the profession and the patients organized in entities such as labor groups, cooperative plans and so forth. Then, too, we must interest ourselves in politics. We must get away from the idea that politics is a dirty game and there is something dishonorable about it. Certainly no one would say there is anything dishonorable in being one of the signers of the Declaration of American Independence, yet at the time that certainly was as deeply into politics as one could get in this land. And where we ourselves do not wish to or cannot serve in a political office, we should carefully select our future representatives at all levels of public life. Here I cannot fail to cite my father's old Virginia expression—"catch them young and raise them to hand." Remember, in the words of Edmund Burke that "all that is necessary for the triumph of evil is that good men do nothing."

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Special Article

Medicine in Haiti

E. LEE DORSETT, M.D., *St. Louis*

AT OUR DOORSTEP, in the Caribbean, three hours by air from Miami, lies one of the most beautiful countries in the West Indies. The Republic of Haiti occupies one third of the Island of Hispanola, the other two thirds belonging to the Dominican Republic. Haiti is a Negro republic and has one of the most unique and interesting histories of any of the West Indies. Here two different and distinct languages are spoken, French by the educated, the elite; and Creole, a language consisting of a mixture of French, Spanish and African spoken by the natives living more or less in the rural areas. The Dominican Republic is distinctly a Spanish country and, for good reasons, heartily disliked by the people of Haiti. It is ruled by a president, a more or less dictator. This country is noted historically for its scenery but is not a pleasant one for the visitor due to the constant surveillance that one is subjected to, quite different from its neighbor, Haiti.

It was my good fortune to have been invited to read a paper on an obstetrical subject before the Association Medicale Haitienne in Port-au-Prince, the capital of Haiti. This meeting was held in the Medical School. Speaking little French, the paper was read in English and was translated into French (as fast as it was read) by Professor Pierre-Louis, the president of the Society. To try and make the paper somewhat more interesting, lantern slides were shown to bring out some of the most important points.

Professor Pierre-Louis, while president of the Medical Society of Haiti, holds the chair of professor of urology in the Medical School and is a member of the International College of Surgeons. The dean of the University School of Medicine is Doctor Pierre-Noel, professor of obstetrics and gynecology. Both of these physicians were born and educated in Haiti but have attended many medical meetings and clinics in the United States. They are cultured men and were most hospitable and made one's stay in their country most pleasant.

The Faculte de Medecine et Pharmacie of Haiti is composed of well trained and educated physicians in their respective branches of medicine. Some were educated in Haiti, a number in France and the United States. They all speak perfect French and some of them good English.

The medical school has a good library and subscribes to all of the French medical journals and a number of American ones. The General Hospital is directly connected with the Medical School so that it has good clinical facilities in a 600 bed hospital. The students receive good bed-side instruction. There is a well equipped laboratory and x-ray department, both presided over by well qualified physicians. There is ample material for postmortem teaching. The wards of the hospital are somewhat overcrowded but this is due to the large number of indigent patients and the lack of funds allotted to the hospital by the government to better equip the hospital and to enlarge the facilities.

Haiti is a proud but poor country and her hospitals and clinics are badly in need of financial support. Why could not some of our wasted money be given to this worthy country to support health of her people instead of being sent to Europe and Asia where it is not appreciated and only causes these countries to despise us more?

There are several small private hospitals in Port-au-Prince that are well equipped and staffed by men who are connected with the Medical School.

In the General Hospital one sees the general run of diseases that occur in this country but in most cases they are considerably exaggerated due usually to overwork and malnutrition. These patients are a class of poor people that is seldom seen in our country and their living condition is pitiful. Added to the ordinary diseases are those with which one is confronted in any tropical country and in the other islands of the West Indies.

Among the 2,000,000 people living in the rural areas, diseases vary greatly from one part of the country to another. Food, diet, clothing, environment and geological location, either in the valleys or in the high mountains, exert considerable influence on the state of health of the people. In the mountain districts the natives live far from the well traveled roads and have no way of reaching the proper medical facilities except to walk or go on mule back. This problem is gradually being solved by the government as they are beginning to establish dispensaries in these isolated areas.

Being especially interested in the obstetrical and gynecological problems of this country, it was ascertained that miscarriages among the women of the rural districts was most common, probably explained by the character of work they are subjected to. It is not unusual for these women to walk to a market some ten or fifteen miles from their home, carrying their produce in large baskets on their heads, and either the same day or the

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Dr. Dorsett plans a return trip in a postconvention tour to be held by the Southern Medical Association at which time a clinic will be held on November 15 in Port-au-Prince, Haiti.

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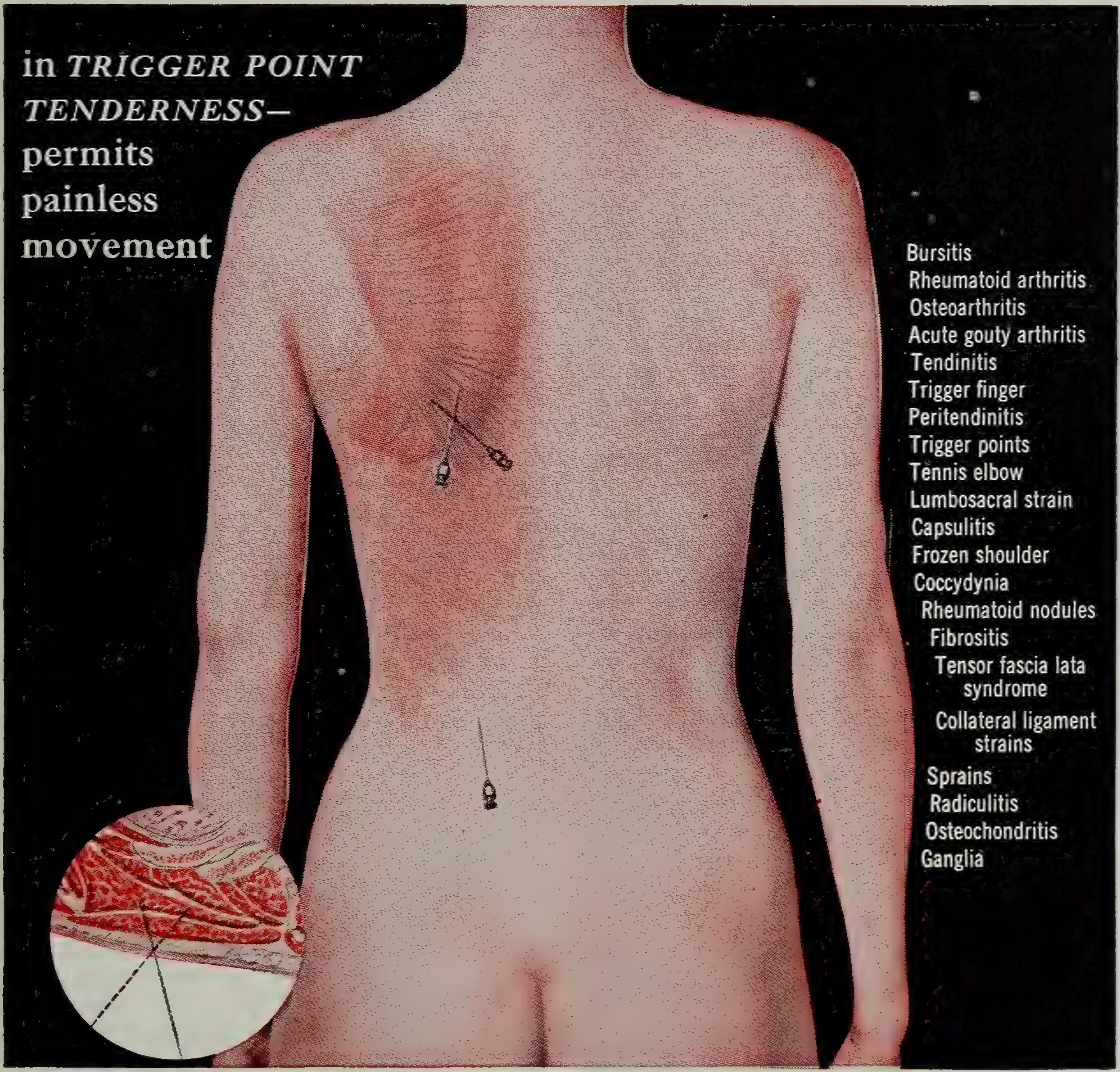

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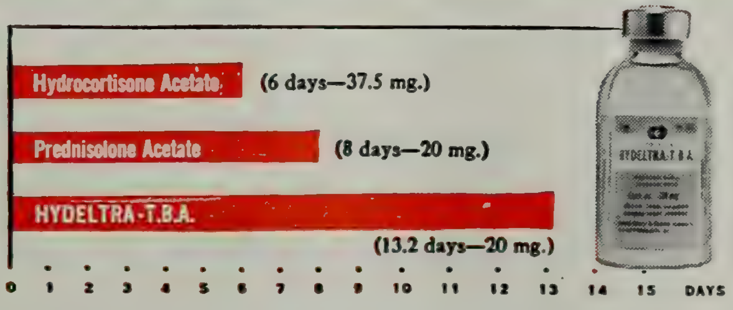

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next, returning home with as heavy a load of articles they have purchased at the market. These women pay no attention to the fact that they may be pregnant and there are many instances of women having given birth to their babies along the roadside. If their babies are born in their huts, they are back at their work the same day (early ambulation). They receive no prenatal care, are generally delivered by a native woman and receive no postpartum attention. Of course those women living in the more populated areas have access to a hospital and in these places receive good care. Port-au-Prince and Cap Hatien have well equipped hospitals with trained personnel as have several of the small cities. Infant mortality is high due to the complications arising during labor. The death rate among children is high due to malnutrition and its associated complications. Among the women many of the gynecological problems that follow the traumas of labor are present. Vesico-vaginal fistula is a frequent complication due to dystocias incident to some of the women having richitic pelves and prolonged and protracted labors. Uterine myomata are common and it is not infrequent to see large fibroid tumors. These women who have these tumors are extremely reluctant to enter a hospital. Eclampsia and nephritis of pregnancy is present but not to a great extent, generally due to the lack of prenatal care. Many other of the complications that we see in this country are present but ofttimes more exaggerated.

The death rate among young children is high due to a number of factors. The important ones are malnutrition, digestive disturbances, dysenteries and enteritis of different types. Most of the dysenteries are of the Flexner type but other types are found. All types of intestinal parasites and worms are prevalent and hook-worm disease is common. All of these diseases are based on diet and living conditions of the natives. Many children eat dirt (geophagism) due to the lack of certain dietetic elements in their food. This dirt eating of course favors intestinal infestations through the swallowing of eggs and larvae of the worms found in the earth. Some years ago a survey was made and at that time 43 per cent of the people in a certain district had Ascaris but now this condition has been partially eradicated.

Among the other diseases are goiter of both types, found mostly among the mountain people. Tuberculosis is common in the outlying districts and is also found in the urban areas. This disease can be attributed to the housing conditions, which are crowded, to malnutrition and to the fact that these cases are not isolated from the rest of the family. There are occasional epidemics of chickenpox, diphtheria, measles and meningitis, and occasional cases of polio are found. In the region of Port-au-prince, called the Cul-de-Sac, there is found a skin lesion, called Gusarola, characterized by patches of discolorations over the skin, varying in color. Like other dermatoses, the lack of cleanliness and malnutrition are an etiological factor, also exposures to excessive sunlight. This disease involves uncovered parts of the body and progresses slowly. White and violet colors predominate and several varities may be seen in the same individual. Severe itching is generally present. Pellagra is not common. Venereal diseases are prevalent. Malaria has been known in Haiti since the discovery of the country by Columbus in 1492 and when he again visited Hispanola on his second voyage in 1493 he "contracted a fever which left him temporarily in coma." When Napoleon attempted to put down the revolt of the natives in 1802 his defeat was partially caused by the death of more than 10,000 of his troops from malaria and yellow fever. Had it not been for this disaster, Napoleon was planning to use Haiti as a "springboard" to invade Louisiana and attack America. There are many other instances in which disease has changed history.

Cancer is common and occurs in all parts of the body. The death rate from this disease is high due to the fact that there is lack of the proper facilities where an early diagnosis can be made and where the proper treatment can be given, such as surgery, radium treatment and x-ray. There are some cases of leprosy, elephantiasis is common and many cases are far advanced. At one time yaws was quite prevalent. At present great advances have been made in the eradication of this disease. Heart disease and nephritis are common, due to hard work, malnutrition and other causes.

One cannot leave this subject without mentioning the magnificant work of Doctor Larimer Mellon, who, from his own pocket, paid the entire expense in building and equipping the Albert Schweitzer Hospital some seventy miles from Port-au-Prince, in the small village of Deschappeles in a jungle in the Valley of the Artibonite. It was my privilege to have been invited by Dr. Mellon to visit his hospital. The only way to reach the hospital was to drive some 75 miles over a rather rough and dusty road from Port-au-Prince. We were fortunate in obtaining the services of Jacque Guerrier and his car. Jacque was not only a good driver but a good guide, speaking French and Creole and some English. The road followed the coast Northeast through the village of Caberet to St. Marc where it left the main highway and turned directly East. We passed through many native villages where the people live in thatched huts and cook out of doors. Before arriving at the historic city of St. Marc we unfortunately had two blowouts and there were no extra tires. At this point we learned some of the attributes of the native Haitian: politeness, hospitality and kindness. We were faced with the dismal future of limping into St. Marc on the rim or waiting in a remote area to receive help from some passing motorist. Luck was with us; a car containing three men going in the opposite direction stopped and the driver, a handsome mulatto, asked if he could be of any assistance. He proved to be a Leonce Edouard, the district engineer officer in charge of the irrigation project in the Artibonite Valley. He took charge of us, turned his car around and not only drove to St. Marc but twenty miles further on to Dr. Mellon's hospital. For this kindness he refused to accept any remuneration. His explanation was that we were the guests of Haiti and he only played a small part in the hospitality.

The Albert Schweitzer Hospital is situated in a fairly thickly populated area with no cities within twenty-five miles. The buildings are of the pavilion style with aluminum screened windows and doors and contains about seventy beds. There is a well equipped laboratory and an x-ray department. Everything is modern and immaculately clean and orderly. Some of the equipment is made in St. Louis, Missouri. The clinic admits some three hundred patients a day. They come from the surrounding areas and some are obliged to wait twenty-four hours before being admitted to the clinic due to the large number of patients. Dr. Mellon and his staff were extremely busy but Dr. Mellon was kind enough to take time out and show us through his hospital, of which he is justly proud. There are no private cases. Some of the natives pay a small fee to cover the price of their medicines. Dr. Mellon and his wife are dedicated people, giving their money and themselves to this work far from home and the ease of a more easy life.

In making rounds with Dr. Mellon two cases of neonatal tetanus were seen and both were doing nicely; unfortunately, three other patients had died. Dr. Mellon has a well trained staff, all except two of them are from the United States, the two being Haitians who are working more or less as postgraduate students but in time will either stay with Dr. Mellon or leave the hospital to take up their work somewhere in Haiti.

After a five and one half hour drive, after leaving Dr. Mellon and his wonderful hospital, we arrived back in Port-au-Prince with a feeling of having seen a dedicated man and his great sacrifice.

ARE YOU A CAPNOTIC?

With smoking becoming a national health subject, many feel a vocabulary is needed. Here is one proposed by Dr. J. E. Schmidt of Charlestown, Ind., a medical vocabulary columnist:

Capnotic—Person with the smoking habit.

Acapnotic—One without the habit, or a nonsmoker.

Capnogenous—Caused or induced by smoking.

Capnopathy—Disease or disorder caused by smoking.

Hypercapnosis—Excessive smoking.

Capnophilia—Fondness for smoking, but not a habit.

Capnodulia—The smoking habit, amounting to an addiction not easy to break.

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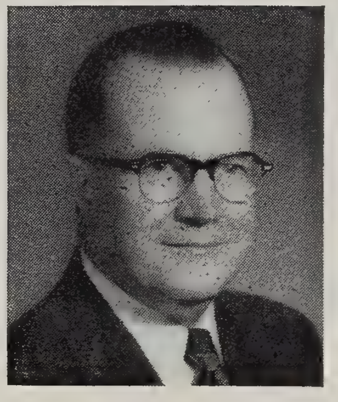
President's Page

Medical education is expensive. With the continued advances in medicine, the cost of adequately preparing our young doctors for practice has risen greatly. There is every reason to believe that the cost will continue to rise. Yet the schools cannot forego their full role in advancing the health and medical care of the country.



With medical schools over the country sustaining an operational deficit of about $10,000,000 every year, the American Medical Association undertook to help meet the financial needs of medical education by establishing the American Medical Education Foundation in 1951 to obtain contributions for the schools.

The medical profession's annual goal is $2,000,000. Industry and business are asked to aid in raising the remaining $8,000,000 to meet the schools' operating deficits.

Dr. James P. Murphy of St. Louis, Missouri State Chairman for AMEF, reports that last year 1,158 Missouri doctors gave money to the cause of medical education. Physicians and medical society auxiliaries gave $7,484 directly to AMEF and alumni contributed $41,933 to their schools.

Those doctors who gave in 1956 to AMEF and directly to their schools numbered about one-fourth of all the doctors in Missouri. Dr. Murphy, on behalf of the State AMEF Committee of the Missouri State Medical Association, is now appealing to all doctors to join in the 1957 AMEF fund-raising campaign.

As Dr. Murphy points out:

"The schools need more money to meet the increased cost of providing good teachers, good equipment and good apparatus to play their proper part in the expansion of medical knowledge. And the doctor in practice benefits from that enlargement of knowledge just as surely as does the medical school student."

I agree with Dr. Murphy. I urge our members to help him and his Committee in their fine work. Make your tax-deductible contribution now to AMEF. You can earmark your gift for your alma mater.

Walter S Sewell M.D.

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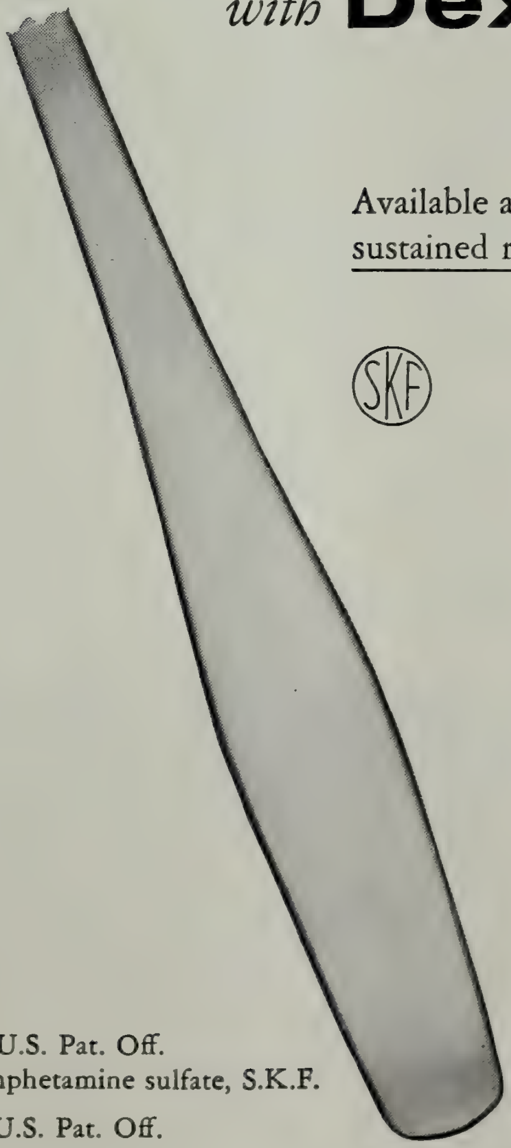

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EDITORIALS

Mental Health Commission Named

Missouri's antiquated mental health program is about to get a long overdue overhauling by the commission named by Gov. James T. Blair. Once the new 5-member body selects a new director the aim will be treatment and research—not custodial care.

Until now custodial care has been the main task, with the state's division of mental diseases burdened with workers and a director of the right political faith rather than psychiatric training.

The new law which went into effect August 29 specifies that the new director shall be "a person competent in the field of mental diseases, administration and program planning." It also provides a salary of up to $25,000 a year, making it attractive to a competent man.

Three of the commissioners are psychiatrists and are members of the Missouri State Medical Association. They are:

Dr. Edmond F. Sassin, a St. Louis neuropsychiatrist on the St. Louis University faculty; a 1-year term.

Dr. E. Chaille Chiasson, psychiatrist on the University of Missouri faculty; a 2-year term. In private life she is Mrs. John King of Columbia.

Dr. Marvin L. Bills, Kansas City neuropsychiatrist, who has served on the staff of the University of Kansas Medical School; a 3-year term.

The lay members of the board are:

Powell B. McHaney, St. Louis insurance executive and a curator of M.U.; a 5-year term.

Former Sen. Francis Smith of St. Joseph, who formerly headed the state's "Little Hoover" commission on governmental reorganization; a 4-year term.

The MSMA worked long for new legislation to remove the director's post from political patronage. In most respects the new law is in line with the thinking of the MSMA Committee on Mental Health.

The new law also is a campaign promise of Governor Blair. Actually it took considerable political courage to sign it with all the pressures being exerted on him to veto it. His signature means the eventual removal of countless political appointees. The present patronage-appointee director, B. E. (Squire) Ragland, has resigned effective September 15. Ragland has served two terms.

Dr. Sassin said the committee's first job will be a new director and then other personnel.

"The heads of our state mental hospitals are good, capable men," he declared. "What we need is more help.

"Persons trained in this type of work are hard to get. The job and the pay must be made attractive."

He emphasized that there should be increased efforts toward treating patients with a view to effecting a cure and getting them home.

The problems of the old folks who have no place else to go and crowd the hospitals is another one facing the commission.

"Elderly persons, whose mental condition is solely the result of their age, should be kept in institutions apart from those who can be benefited through treatment," Dr. Sassin commented.

Missouri's dismal standing among the states in the treatment of mental disorders should become much brighter as the months roll by.

The best part of it will be the persons restored to their families, persons that otherwise might have rocked away their lives in overcrowded wards.

PREPAID MEDICAL AND SURGICAL CARE

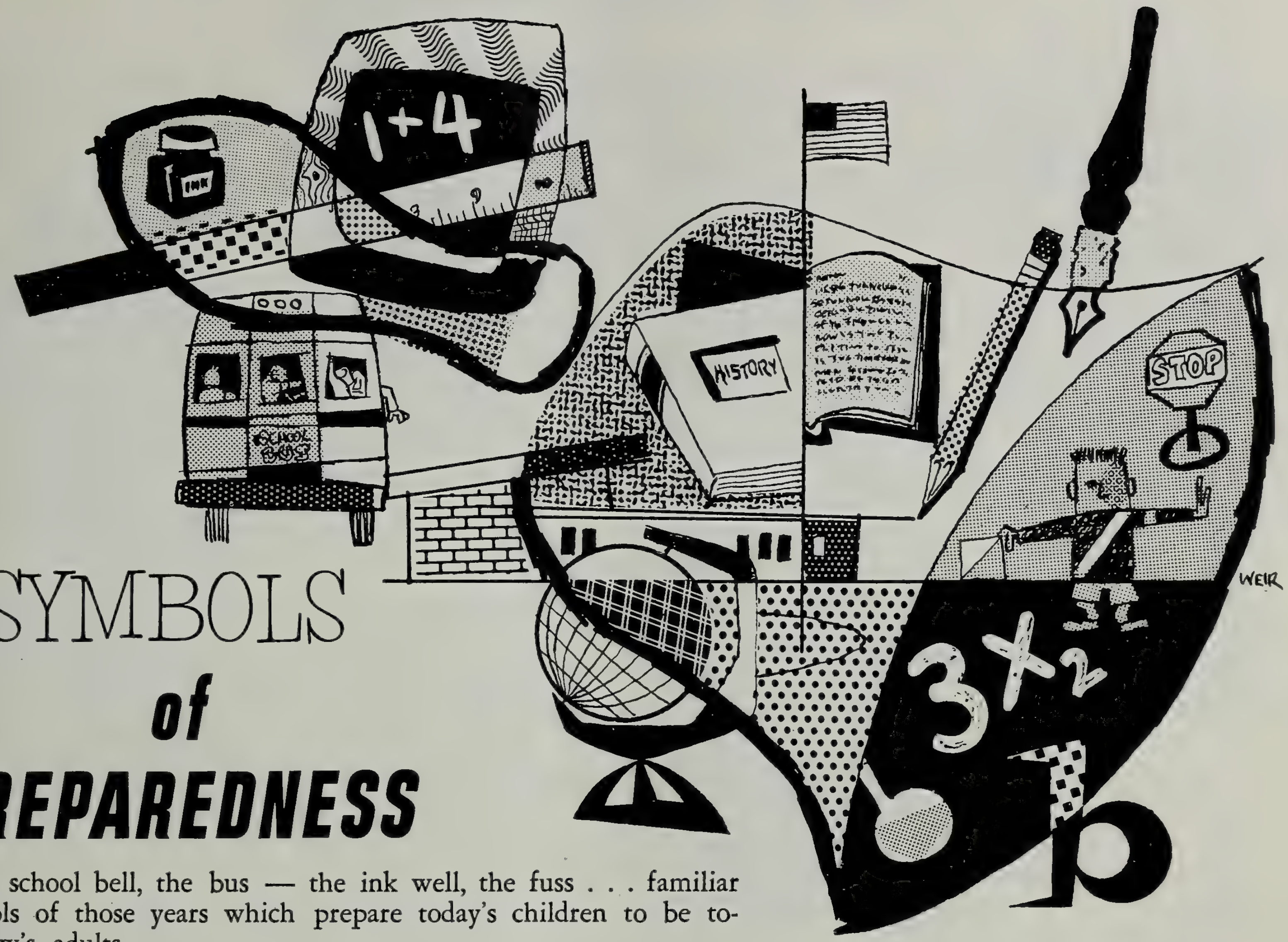
Voluntary health insurance has reached a new high in Missouri with more than 3,300,000 persons—about four out of five—covered by some form of insurance, the Health Insurance Council reports.

Not only do more Missourians have some form of coverage to help pay hospital and doctors bills, but more of them have it than the national average. The Council said the national average is about 70 per cent, compared with more than 80 per cent in Missouri.

Blue Shield and Blue Cross plans account for about 40 per cent of the coverage in Missouri, with the balance in insurance company programs.

The Council, which is a federation of eight insurance associations, said hospital coverage outstrips surgical-medical care about five to four. There were 3,027,000 with hospital coverage last December 31, 1956, and about 2,938,000 a year earlier. The Blue Cross plan presently covers about 1,300,000 of the 3,300,000 with hospital protection.

Surgical expense insurance protected 2,808,000 last December, compared with 2,481,000 the previous year. Those having regular medical expense coverage, providing for doctor visits for non-surgical care, numbered 1,844,000 in 1956, and 1,652,000 in 1955. Blue Shield presently provides surgical-medical coverage for nearly 900,000.



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Musings of the Field Secretary

Among other things you may be interested in are several meetings.

The 22nd Annual Meeting of the Mississippi Valley Medical Society will be held at the Sheraton-Jefferson Hotel, St. Louis, September 25-27. Forty-two outstanding speakers are scheduled to appear on the Assembly's program.

At the same hotel on September 27 and 28 the 14th Annual Meeting of the American Medical Writer's Association will take place.

The 35th Annual Fall Clinical Conference of the Kansas City Southwest Clinical Society meets September 30 through October 3 at the Municipal Auditorium in Kansas City, Missouri. In addition to lectures by the many distinguished guest speakers, the Conference will feature color television and panel discussions occurring simultaneously, offering a variety of program selection. The usual round table luncheons which have been so popular in the past, and the Clinicopathologic Conference will be presented again. The meeting will open with a panel discussion on the "Medical Effects of Radiation" moderated by Eugene P. Cronkite, M.D., head of the Division of Experimental Pathology, Brookhaven National Laboratory.

October 3 and 4, at Holiday Inn, Lindbergh and Long Roads, St. Louis County, the Annual Postgraduate Course on "Cardiology," sponsored by the Missouri Heart Association, will be given in association with St. Louis University Medical School. The Cambridge Cardioscope will be utilized during a part of the course.

Sunday, October 13, a full-day medical symposium on Modern Trends in Therapy will be sponsored at the Chase-Park Plaza Hotel by the St. Louis Academy of General Practice, St. Louis University School of Medicine and Washington University School of Medicine. Scheduled to appear on the program are: Dr. Edward Boland, Los Angeles, California; Dr. Walter Alvarez, Chicago, Illinois; Dr. R. J. Bolt, Ann Arbor, Michigan; Dr. Louis Buie, Rochester, Minnesota; Dr. J. Cyril Petterson, Milwaukee, Wisconsin, and Dr. C. F. Burgoon, Philadelphia, Pennsylvania. Subjects to be discussed are "The Use of Steroids in Rheumatoid Arthritis," "Gastrointestinal Diseases of the Aged," "Diagnosis of Upper Abdominal Complaint," "Management of Anorectal Disease," "Chronology of Pediatric Immunization," and "Modern Treatment of Common Skin Diseases."

Sunday afternoon and evening, April 13, the 4th Annual Southeast Missouri Cancer Conference will be held at the Marquette Hotel, Cape Girardeau, Missouri. The afternoon speakers include: James King, M.D., Medical Director of Cardinal Glennon Hospital for Pediatrics, St. Louis; David S. Carroll, M.D., Professor of Radiology, John Gaston Hospital and the University of Tennessee Medical School, Memphis, Tennessee; H. R. McCarroll, M.D., Assistant Professor of Orthopedic Surgery, Washington University Medical School, St. Louis; Robert J. Booher, M.D., Pack Medical Group, New York, New York.

The evening session, following a social hour and dinner, will present a panel discussion of tumor cases drawn from the Tumor Service of the St. Francis and Southeast Missouri Hospitals.

The 9th Annual Assembly of the Missouri Academy of General Practice will be staged at the Governor Hotel, Jefferson City, on Wednesday and Thursday, October 30 and 31. The scientific program this year will feature four symposia with a half-hour panel discussion serving to summarize each. On Wednesday morning the symposium will embrace: "Endocrinology," on Wednesday afternoon "Gastroenterology," on Thursday morning "Chest Diseases," on Thursday afternoon "Heart." Both out-of-state and in-state speakers will participate in this two-day postgraduate program. The annual banquet and dance will be held on Wednesday night in the ball room of the Governor Hotel. A more detailed résumé of the Academy's entire program is printed elsewhere in this issue—check it fully.

The latch-string is out to you for all of these meetings!

New Members

Adriany, Josef, M.D., Missouri State Sanatorium, Mount Vernon. Ozarks Medical Society.

Brown, Frederick B., M.D., Aurora. Ozarks Medical Society.

Doherty, William R., M.D., 5822 Kenwood, Kansas City. Jackson County Medical Society.

Gaffney, Caldwell J., M.D., 4259 East Ashland Avenue, St. Louis. St. Louis Medical Society.

Johnson, George L., M.D., 1754 Wedgewood, Springfield. Greene County Medical Society.

Ketterman, Grace H., M.D., 600 East 72nd Street, Kansas City. Jackson County Medical Society.

Longenecker, Joe L., M.D., 612 North Byers Avenue, Joplin. Jasper County Medical Society.

Meares, Cecil H., Jr., M.D., Joplin. Jasper County Medical Society.

Michael, Kenneth D., M.D., 950 Francis Place, St. Louis. St. Louis Medical Society.

Morrison, T. A., M.D., Aurora. Ozarks Medical Society.

Pileggi, Felix A., M.D., 3700 Wyoming, Kansas City. Jackson County Medical Society.

Price, Charles H., M.D., Cassville. Ozarks Medical Society.

Smith, George E., M.D., 1611 Highschool Drive, Brentwood. St. Louis County Medical Society.

Wenneker, Alvin S., M.D., 858 Longacre, St. Louis. St. Louis County Medical Society.

Williamson, George L., M.D., 1216 Professional Building, Kansas City. Jackson County Medical Society.

Zich, Walter J., M.D., 6159 McPherson Avenue, St. Louis. St. Louis Medical Society.

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Councilor District News

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

A called meeting of the Jefferson County Medical Society was held Friday, June 21, in the Jefferson Memorial Hospital. Members present were: Drs. Roger Allbee, Bertalan Bolgar, Harold Donnell, R. H. Donnell, Thomas A. Donnell, F. L. Kozal, J. L. Mayfield, Carl Rice, J. F. Rutledge, and E. J. Senn. Guests present were: Dr. J. C. Creech of Troy, Dr. Richard Grayson, and Dr. W. F. Utterman of Perryville, and Dr. G. H. DeGenova of Ste. Genevieve.

The meeting was called to order at 8:30 p.m. by the vice president, Dr. Thomas A. Donnell. The scientific program was presented by Dr. William H. Masters, associate professor of obstetrics and gynecology at Washington University Medical School. He gave an informative and stimulating talk on endometriosis, menorrhagia and metrorrhagia. Dr. Creech brought us up to date on matters concerning the State Medical Association. Dr. Rice brought up the question of organizing a Medical Disaster Committee; decision on this was deferred until next meeting.

The meeting adjourned at 10:00 p.m. to be followed by a meeting of the staff of Jefferson Memorial Hospital, which has now been operating since May 15.

Meeting of July 19

The Jefferson County Medical Society met at the Jefferson Memorial Hospital on Friday night, July 19. Dr. McKinstry, president, presided. Members present were: Drs. Allbee, T. A. Donnell, Harold Donnell, Kozal, Mayfield, McKinstry, Rice, Rutledge and Senn.

Dr. Minot P. Fryer, associate professor of clinical surgery of Washington University Medical School, gave a talk on "Treatment of Compound Facial Injuries," which was well received.

Following this, delicious refreshments were served by the hospital prior to a meeting of the hospital staff members.

JOHN F. RUTLEDGE, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

A dinner meeting of the Mid-Missouri Medical Society and the doctors' wives was held at Nelson's Cafe in Lebanon, Thursday evening, July 25. Physicians and their wives from the Fort Leonard Wood Clinical Society were invited guests.

The Society paid honor to Dr. J. H. Summers, Lebanon, for completion of 25 years of medical service to the Lebanon area.

The scientific program for the evening, sponsored by the Missouri Academy of General Practice, was presented by John W. Polk, M.D., thoracic surgeon, Springfield, Missouri. Dr. Polk gave a most interesting and informative discussion on "Traumatic Conditions of the Chest."

M. K. UNDERWOOD, M.D., *Secretary*

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner, Wednesday night, June 26, at the Anchor Cafe in Mountain View with the following members and visitors present: Drs. R. W. Denney, S. W. Connor and A. C. Ames of Mountain Grove; Drs. M. B. Perkins, H. W. Miller and L. E. Walker of Willow Springs; Dr. D. E. Tiffany of Mountain View and Dr. R. H. Smith and Dr. M. L. Fowler of West Plains; Dr. C. W. Cooper of Thayer and Dr. A. T. Walker of Mammoth Springs, Arkansas; Drs. William H. Penninger and Alex L. Brown of Springfield and the wives of several of them.

After dinner, the ladies went home with Mrs. Tiffany for the evening, and the doctors went to the office of Dr. Tiffany, where they were joined by two sisters from the Memorial Hospital.

Dr. Brown spoke on epilespy and showed and explained a number of electroencephalograms. Dr. Penninger spoke on the treatment of fractures of the bones of the hand and showed slides by way of illustration.

The minutes of the last meeting were then read and approved, and the application for membership of Dr. F. A. Elders of Houston, left over from the last meeting was brought up, but as he has never been present or presented a certificate as to his standing in the society of which he is now a member his application was again left over.

It was voted to accept Dr. Cooper's invitation to make the next meeting a picnic at his camp on the river below Mammoth Springs and make it an afternoon and evening of recreation and relaxation without a scientific program on the third Thursday in July.

There being no further business, the meeting was adjourned.

A. C. AMES, M.D., *Secretary*

A.M.A. ADDS NEW OFFICE

The American Medical Association has created two new important posts in its administrative setup. They are assistant to the President and General Manager of the A.M.A.

Dr. George F. Lull, who has been Secretary-General Manager of the Association for 11 years, has been named by the Board of Trustees to be Assistant to the President. He will continue serving as Secretary, an elective post.

The Board also has appointed Dr. F. J. L. Blasingame, Wharton, Tex., as General Manager. The 50-year-old physician will take over his duties January 1. He has been active in medical affairs at state and national levels for many years.

Dr. Lull, 70, joined the A.M.A. after serving 34 years in the Army. He retired as major general, last serving as deputy Surgeon General.

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Legislation

A Capsule Report on the Final Outcome of Bills In the 1957 Legislature Affecting the Practice Of Medicine and the Public Health

Tom R. O'Brien, *Executive Secretary*

Now that Governor Blair has completed action on bills passed by the 69th General Assembly of Missouri, here is a report on the final results of the five-months legislative session that ended May 31. The outcome was good from the viewpoints of public health care and the medical profession. Several bills were passed of considerable benefit to the public the medical profession serves; no legislation was adopted adversely affecting the profession's ability to provide its services.

Two important bills passed by the Legislature and signed into law by the Governor make significant advances in the field of health care for the public. One was the mental health measure and the other was the new nursing home legislation.

The mental health bill takes a long step forward toward improvement of the state's mental hospitals. Under the new law, the Director of the Division of Mental Diseases will, beginning in 1958, be appointed by a five member State Mental Health Commission, at least three of whose members "shall be physicians skilled in the treatment of nervous and mental diseases." Under the old law, the Director was appointed by the Governor. The new legislation should remove the post from the area of political patronage and place the state's work with the mentally ill on a completely professional basis.

In the main, the legislation is in line with the thinking of the MSMA Committee on Mental Health, which, however, desired to have more specific qualifications set for the Director than were authorized in the measure. The act as passed provides that the Director shall be "a person competent in the field of mental diseases, administration and program planning." His salary may be up to $25,000 per year. The MSMA Committee had recommended that the new law require the appointment of a psychiatrist to the post.

The intensive and thoughtful work of the Senate Interim Committee that made a comprehensive study of laws pertaining to mental hospitals and recommended the legislation deserves the gratitude of the people of Missouri. Members of the committee are Chairman Albert M. Spradling, Jr., Democrat, of Cape Girardeau; John W. Noble, Democrat, of Kennett; Robert H. Linneman, Republican, of St. Charles, and Hartwell G. Crain, Republican, of St. Louis County.

The nursing home bill, which was passed early in the legislative session soon after the catastrophic fire at a nursing home in Warrenton, gives the public the protection of adequate standards in the licensing and inspection of nursing, convalescent and boarding homes. In addition to new safety requirements, a provision that will in effect bring about the labeling of the kind of care provided by each institution will be of great benefit to the public. This requirement, favored by MSMA, calls for the issuance of three different types of licenses distinguishing between homes that have professional nursing care, homes that have practical nursing care and homes that provide only domiciliary or personal care. In this way, the public will be informed of the type of care furnished by a home. A nursing Home Advisory Council has been appointed by the State Health Director under the provisions of the act to assist in policy and other matters. One of the members is Hollis N. Allen, M.D., of St. Louis, who is chairman of the MSMA Committee on Hospital and Professional Relations.

Two other bills passed by the Legislature are of interest to doctors. One of these, S. B. 115, which was supported by MSMA, brings the state narcotics laws into accordance with a change in the Federal act by permitting the oral prescription of certain narcotic drugs, including codeine. The measure also provides more stringent penalties for the sale of drugs to minors. S. B. 53, which was approved by the MSMA Committee on Mental Health, makes minor changes in commitment procedure to state mental hospitals.

Among the bills that failed of passage in the Missouri Legislature were four measures to implement Federal Public Law 880, which was passed by Congress in 1956 to provide matching Federal grants to the states for direct payment to those the Federal Legislation designated as "vendors" of medical care (including physicians, hospitals, dentists, druggists, nurses, nursing homes) for services rendered to dependent children, the aged, the disabled and the blind receiving public assistance. The defeat of this legislation, which would have required substantially increased appropriation of state funds, was forecast early in the session after the Governor had stressed to the Legislature that the state's financial situation was so straitened that legislation requiring large additional appropriations should be deferred to a subsequent session until an over-all study of the state's finances could be made.

Key measure of the above legislation was S. B. 40, which would have designated the State Division of Welfare as the agency to handle the program in Missouri. A companion bill was S. B. 58, which would have authorized the Welfare Division to appoint advisory committees to assist the Division in connection with the program. The other measures, H. B. 103 and H. B. 104, would have dealt with the implementation of Public Law 880 in the area of services to the blind.

Proposed legislation that would have expanded the examination and educational requirements for applicants for chiropractic licenses and thus, we felt, provide an opening wedge for subsequent expansion of chiropractic practice rights, was defeated in the committee of the House which it had been referred. This measure, H. B. 485, would have added anatomy, physiology, bacteriology and pathology to the subjects on which chiropractic candidates are examined and would have required a chiropractic school student to have two prior years of college work. This bill, which was opposed by MSMA, was similar to measures introduced in past legislative sessions.

A bill that among other things would have given chiropodists unlimited rights to use drugs was withdrawn from consideration after MSMA had pointed out to representatives of the chiropodists that we would oppose the measure in that form. That legislation was designated as H. B. 263. Another chiropody bill, H. B. 150, which we did not oppose was passed in the House but defeated in the Senate. It would have given the chiropodists' regulatory board greater powers over such things as malpractice.

A new state board of registration to license electrologists was passed out of a House committee but defeated on the floor of the House. MSMA did not favor this legislation, as it would have added still another licensing board to the multiplicity of such boards already in existence.

Two measures dealing with eye care failed of passage in the General Assembly. H. B. 241 proposed to create a board of examiners to license dispensing opticians. S. B. 26 would have made it illegal for corporations to practice optometry.

Action by the State Board of Medical Examiners to adopt a regulation permitting the board to issue a temporary license for practice in a state-supported hospital to a physician who is not a citizen resolved an effort to effect a mandatory change by statute in the form of S. B. 253. H. B. 480, providing that the State Board of Medical Examiners may not require citizenship as a condition for issuing a license to practice medicine and surgery was defeated. Another bill that failed of passage was H. B. 578, which would have transferred all state licensing boards from the Department of Education to the Department of Commerce and would have authorized sweeping changes in the make-up and powers of the boards.

With the American Medical Association Code of Ethics already on record in opposition to fee-splitting, S. B. 277 to make fee-splitting unlawful by statute in Missouri died in committee without a hearing.

A measure to create a commission of nine members to study the problems of the aged was another measure that failed of passage in the Legislature. It was designated as H. B. 98.

The MSMA Committee on Maternal Health for a number of years has been studying maternal deaths in an effort to determine whether some such deaths were preventable and to lower the maternal death rate by an educational program. In this connection, the committee had favored legislation to declare inadmissible in court as evidence any information obtained by a committee member in an investigation into a maternal death. S. B. 235 was introduced in the Legislature to accomplish this purpose. After it was learned that certain phases of the proposed act might be considered unconstitutional, there was no attempt made to have the measure brought up for consideration and the bill was allowed to die. Constitutional aspects of such legislation will be studied further.

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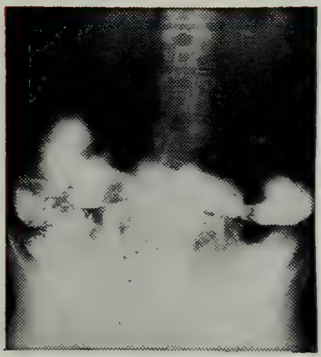

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THERAPEUTIC INDEX

The first report of the National Disease and Therapeutic Index has been released. It is a preliminary analysis of "Neoplasms As Seen By Practicing Physicians" and is being sent to all medical schools and groups.

About 50 physicians in the Kansas City area are cooperating with the N.D.T.I. by reporting fully on each patient seen during a 48-hour period once each quarter. There are more than 1400 doctors in 27 statistically selected areas throughout the nation working in the research project.

"Neoplasms were reported for 2.8 per cent of all patients seen," the report states. "Fifty-five per cent of these were diagnosed as malignant, 35 per cent benign."

"Forty-two per cent were neoplasms of the genitourinary system, with less than half of these being malignant conditions. Neoplasms of the buccal cavity and pharynx, digestive and respiratory systems totaled over 20 per cent of all neoplasms reported, over 80 per cent of which were malignant."

The descriptive profile came from reports on more than 91,000 patients seen during 1956 by doctors in private practice.

Two advisory committees have been established to provide guidance in the selection and preparation of data to be released. They are the committee of medical educators and the committee of medical society executives.

William H. Bartleson, executive secretary of the Jackson County Medical Society and president-elect of the Medical Society Executives Conference, is included in the latter.

The report states it is impossible yet to determine "which tabulations of data will be most revealing and most valuable" to the medical field.

The project was started in February, 1956, to provide the four sponsoring members of the ethical pharmaceutical industry with data not otherwise available. The firms believe the information will be desirable as "guides to research and new product development."

The program is being operated by Taylor, Harkins and Lea, Inc., Philadelphia, specialists in medical epidemiological and marketing research. The sponsors are Ciba Pharmaceutical Products, Inc.; Eli Lilly and Company; Smith, Kline and French Laboratories; and The Upjohn Company.

HOSPITAL ADMISSIONS INCREASE

Hospital admissions increased nearly one-fifth faster than the nation's population during the last 11 years, the American Hospital Association reports.

In a survey for the 11 years, 1946-1956, the admission rate climbed from 112 per thousand population to 132. The admissions last year to hospitals of all types were 22,089,719. There would have been just 19 million if the rate had remained constant.

The statistics came from questionnaires sent to 6,966 hospitals listed by the A.H.A. The hospitals had 1,607,692 beds, with an average daily census of 1,355,792 in 1956.

Fifty-one per cent of the hospitals were nonprofit, 17 per cent proprietary, 6 per cent federal and 26 per cent state and local governmental hospitals.

Total hospital assets hit the 13 billion dollar mark last year, up 122 per cent from the 6 billion reported in 1947. There was a 9 per cent increase from 1955 to 1956.

Hospital care climbed even more, increasing 207 per cent in the 11 years to 6 billion dollars last year. Payroll expense accounted for nearly 4 billion of it, an increase of 258 per cent during the 11-year span. Payrolls also accounted for a bigger chunk of the total hospital expense, 66 per cent in 1956 compared with 56 per cent in 1946.

SYMPOSIUM ON NUTRITION

A symposium on "Nutrition in Pregnancy" will be held at the University of Missouri Medical Center, Columbia, on October 11, sponsored by the Council on Foods and Nutrition, American Medical Association and cosponsored by the University of Missouri Medical School, University of Missouri Adult Education and Extension Service and the Boone County Medical Society. The program follows:

Moderator: Robert L. Jackson, M.D., Professor and Chairman, Department of Pediatrics, University of Missouri Medical Center

Registration: 8:00 a.m.

Influence of Maternal Nutritional Level on the Fetus and Infant—Dr. Ray Hepner, Associate Professor of Pediatrics, University of Missouri Medical Center

Metabolic and Biochemical Changes in Normal Pregnancy—Dr. Icie Macy Hoobler, Detroit, Michigan

Importance of Nutritional State of Mother Prior to Conception—Dr. Genevieve Stearns, Research Professor of Orthopedics, State University of Iowa

Production of Congenital Malformations by Maternal Dietary Deficiencies, Experiments and Interpretations—Dr. Josef Warkany, Professor of Pediatrics, University of Cincinnati

Discussion: Dr. Albert G. Hogan, University of Missouri

Effect of the Reproductive Cycle on Nutritional Status and Requirements—Dr. William J. McGanity, Vanderbilt University

Dietary Habits During Pregnancy—Miss Dorothy Vorhies, Associate Professor of Dietetics, University of Missouri Medical Center

Panel Discussion

Review of Epidemiologic Studies

Moderator: Dr. Icie Macy Hoobler

Participants: Dr. Wm. J. Darby, Vanderbilt University, Miss Marjorie Heseltine, Children's Bureau, U. S. Dept. Health, Education, and Welfare and Drs. Hepner, Stearns, and McGanity

For further information contact the Council on Foods and Nutrition of the American Medical Association.

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News items and personals	______	______
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From the Medical Schools

WASHINGTON UNIVERSITY

Student Fellowships

Summer research fellowships were awarded to 60 students at Washington University School of Medicine. Funds for the fellowships come from departments of the medical school and grants from the National Science Foundation, U. S. Public Health Service, Lederle Laboratories, National Council to Combat Blindness, Macy Foundation and the Tobacco Industry Research Committee.

Eight fellowship recipients are conducting research at other universities. They are: Ronald C. Simons, Hillel Tobias, H. Stephen Farmer, Jay J. Kuten, Charles Kuhn, Richard H. Morrow, Bryce L. Munger and Jerome L. Silverman. Students granted fellowships to conduct research at the Medical Center here include: Glenda Wacker, Clay M. Armstrong, Floyd E. Bloom, Charles W. Boren, Robert W. Edmonds, Leonard A. Fahien, Ronald K. Kalkhoff, Martin L. Rubenberg, Laurence E. Rubin, Joseph A. Sisson, R. Michael Sly, Barry W. Steiger, Donald H. Stewart, Jr., Carolyn M. White, Phillip E. Winter, Edward M. Wolfe and Raymond D. Wochner. Others are: John M. Boyce, William F. Bridgers, John H. Brown, Richard M. Colbert, James A. Cross, Robert B. Dawes, David W. Ferguson, Lester Garfinkel, Duane C. Hellam, Charles Kilo, Robert H. Laatsch, Robert F. Malison, Gordon R. Miller, Thomas R. Moon, Jr., Eugene L. Nagel, Stanley G. Nathenson, Nicholas L. Owen, Allen G. Parelman, Morris Reichlin, Richard Rosenberg, Sanford Sebransky, Richard Srebro, Robert L. Swearingen, Richard E. Thompson and David L. Winter. Also included are: Benjamin A. Borowsky, Theodore J. Brickner, George E. Broman, Jr., Richard E. Bryant, Mickey L. Gulick, David M. Kessner, Herbert Lubowitz, James G. Manis, Richard B. Oglesby and Joe R. Williamson.

Grants

Two grants totaling $30,095 for research and personnel training have been made to Washington University by the United Cerebral Palsy's Research and Education Foundation. The grants were part of $422,425 given to universities and hospitals throughout the country by the foundation. Of the total amount awarded the university, $17,834 will go to Dr. John A. Stern, research associate in medical psychology, for a continuation of his investigation of neurophysiological changes taking place during the learning process. Dr. Eli Robins, associate professor of psychiatry, will receive the other grant of $12,261 for quantitative histochemical studies of the morphogenesis of the cerebellum.

A two-year grant of $5,000 has been awarded to Dr. Jack L. Strominger, assistant professor of pharmacology at Washington University School of Medicine, to help support research in uridine diphosphoglucose dehydrogenase. The grant was made by the National Science Foundation. The grant will be used mainly to support work done by Robert H. Threnn, a science teacher at Affton Junior High School. Threnn works under Dr. Strominger's direction.

The Tuberculosis and Health Society of St. Louis has awarded a $2,000 research grant to Dr. Ernest Pund, National Foundation for Infantile Paralysis fellow in medicine, and Dr. Bernard A. Bercu, assistant professor of medicine. The grant is to finance study of the effects of environmental changes on lung functions.

Symposium

Dr. E. V. Cowdry, director of the Wernse Laboratory of Cancer Research at Washington University School of Medicine, gave a paper on "Malignant Cells—A Review" at the recent International Symposium on Development of Mammary Cancer held in Perugia, Italy. Earlier Dr. Cowdry, along with nine other faculty members, participated in the Fourth International Gerontological Congress in Merano and Venice, Italy.

SAINT LOUIS UNIVERSITY

Talks and Travel

Three Saint Louis University scientists went abroad to attend the International Congress of Neurological Sciences held in Brussels July 21 to July 30. Dr. Edmund A. Smolik, associate professor of clinical surgery, delivered a paper on "Blood Volume Changes in Neurosurgical Patients" before the congress.

Dr. Louis L. Tureen, associate professor of clinical neurology and executive secretary of the section on neurology, and Dr. Frank A. Palazzo, senior instructor in surgery, attended the nine day conference. Dr. Tureen will attend the International Congress of Psychiatry in Zurich September 1 through September 7 before his return to St. Louis. During the interim he visited neurological treatment and research centers in London, Copenhagen, Oslo, Stockholm, Helsinki, Berlin, Munich, Vienna and Paris.

Dr. Walter J. Burdette, professor of clinical surgery at the School of Medicine and Director of the Saint Louis University Surgical Service at Veterans Hospital left for Japan in August to visit medical and research institutions in Japan. One of the main objectives of his trip was to visit Tokyo in connection with the studies he has been conducting at the University on a hormone in relation to cancer. While there he planned to collect and process silkworm chrysalises and visit institutes for sericulture. His cancer research at the University is supported by the American Cancer Society and the National Cancer Institute. Following his stop in Japan Dr. Burdette planned to visit and lecture at medical and research centers in Thailand, India, Lebanon, Germany, France, Greece and Turkey.

The School of Medicine played host to the fourth annual meeting of the University Plastic Surgeons Travel Club, which was held in St. Louis May 30 to June 2. The sessions were presented at the Coronado Hotel and Cardinal Glennon Memorial Hospital for Children. Participants and their topics included: Dr. C. Rollins Hanlon, director of the department of surgery, "Sternal Incisions for Pectus Excavatum"; Dr. John P. Wyatt, professor of pathology, "Protean Pattern of Mesenchymal Tumors"; Dr. Walter J. Burdette, professor of clinical surgery, "Selected Studies on Carcinogenesis"; Dr. Don C. Weir, associate profes-

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sor of clinical radiology, "Radiation Therapy in Tumors of the Head and Neck"; Dr. James E. Lewis, assistant professor of surgery, "Arterio-Venous Fistulae"; Dr. Edmund A. Smolik, "Dermal Grafts in Neurosurgical Procedures"; Dr. Vallee L. Willman, research fellow: Dr. William Stoneman, resident in surgery, and Dr. Francis X. Paletta, assistant professor of clinical surgery, "Surgical Rehabilitation of Major Defects of Head and Neck."

Dr. John P. Wyatt, professor of pathology and associate director of the department, delivered an address before the American Bar Association in New York July 8. His lecture was entitled "Trends in Industrial Lung Disease: Yesterday, Today and Tomorrow."

Appointments

Dr. Armand E. Brodeur has been named assistant dean of the School of Medicine. His appointment, announced by the Very Rev. Paul C. Reinert, S.J., President of the University, became effective August 1. Dr. Brodeur's duties as assistant dean will be in the area of student admissions and curriculum scheduling. A member of the faculty since 1952, he received an M.D. degree from the University in 1947 and a Master's degree in radiology in 1952. He will continue his work as radiologist at Cardinal Glennon Memorial Hospital. Rev. Edward T. Foote, S.J., has been appointed associate dean of the College of Arts and Sciences. Father Foote has been associated with the School of Medicine since 1948, serving as regent and assistant dean until 1955 and associate dean since then.

Grant

Studies of the role of porteins in virus multiplication are being undertaken at the School of Medicine under a grant of $17,339 from the National Foundation for Infantile Paralysis. The studies are under the direction of Dr. Norman E. Melechen, senior instructor in the University's Department of Microbiology. Participating with Dr. Melechen in the project is Dr. R. Walter Schlesinger, professor of microbiology and director of the University's Department of Microbiology. The scientists will study the possible role of specific protein in the production of nucleic acid during virus multiplication.

UNIVERSITY OF MISSOURI

Trips and Talks

Dr. S. O. Landry, assistant professor, Department of Anatomy, presented a paper entitled: "The Systemic Position of the South American Tree-Porcupine, Chaetomys," on June 18, at the annual meeting of the American Society of Mammalogists held at Lawrence, Kansas. Approximately 200 were in attendance at the meeting.

Dr. W. A. Sodeman, professor and chairman, Department of Medicine, spoke to approximately 50 members of the Rotary Club in Mexico, Missouri, on May 17. Dr. Sodeman chose as his subject: "University of Missouri Medical School and Geriatrics."

A six hour lecture and demonstration program on auscultation was conducted by Dr. John H. Killough, associate professor of medicine, on May 23 and 24 at Cape Girardeau, for general practitioners in the area.

The program was attended by approximately 30 doctors and was sponsored by the Missouri State Medical Association.

On May 29, Dr. Killough spoke to members of the Lions Club in Columbia on "High Blood Pressure," with approximately 30 members in attendance.

Dr. Vincent P. Perna, instructor in the Department of Pathology, attended the meeting of the American Society of Medical Technologists in cooperation with the American Society of Clinical Pathologists at Chicago from June 23 to June 29. The meeting, held for the purpose of maintaining and improving laboratory standards and technics, was attended by approximately 1,400 participants.

The Laboratory Committee of the Missouri State Medical Association met in Columbia, on June 15, with Dr. Joseph E. Flynn, professor and chairman, Department of Pathology, presiding.

Dr. Robert L. Jackson, professor and chairman, Department of Pediatrics, and Dr. Walter R. Hepner, associate professor, Department of Pediatrics, attended the annual meeting of the American Pediatric Society and the Society for Pediatric Research in Carmel, California, on June 17 through June 22. Dr. Jackson discussed a paper on the "Use of Oral Hypo-Glycemic Agents in Treatment of Children With Diabetes Mellitus," and Dr. Hepner discussed papers given by members of the Society for Pediatric Research. The meetings were attended by approximately 700 members of the association from throughout North America.

Dr. Robert L. Jackson and Dr. Fredric E. Simpson, assistant professor, Department of Pediatrics, participated in a panel discussing resource services in Missouri at the second annual special education conference held on the University of Missouri campus, June 25 and 26. The program, sponsored by the College of Education and the Adult Education and Extension Service of the University of Missouri was attended by approximately 250.

Dr. Gwilym S. Lodwick, professor and chairman, Department of Radiology, gave a talk on "Congenital Heart Disease" to the field nurses from the Crippled Children's Service, at the Medical Center on June 12. There were approximately 25 attending the conference.

Dr. Theodore E. Keats, associate professor in radiology, attended the American Medical Association meeting in New York City on June 5 through June 12.

School of Nursing

Mrs. Verna Rhodes and Miss Ruth Linville, instructors in the School of Nursing, were in Mount Vernon, Missouri, June 10 through June 15 attending a conference held jointly by the Missouri State Sanatorium and the Missouri Division of Public Health.

Miss Lucille Spalding, associate professor, was in Washington, D. C., from June 17 through June 22 attending a conference sponsored by the United States Public Health Service, Division of Personnel Training Branch. The purpose of the meeting was to aid in the preparation of nurses to teach and to assume leadership in preparation for civil defense in natural and man-made disasters.

Miss Betty Crim, instructor, attended a meeting of graduate nurses sponsored by Southern Illinois University, Department of Nursing, on June 24 through June 28.

Gifts and Grants

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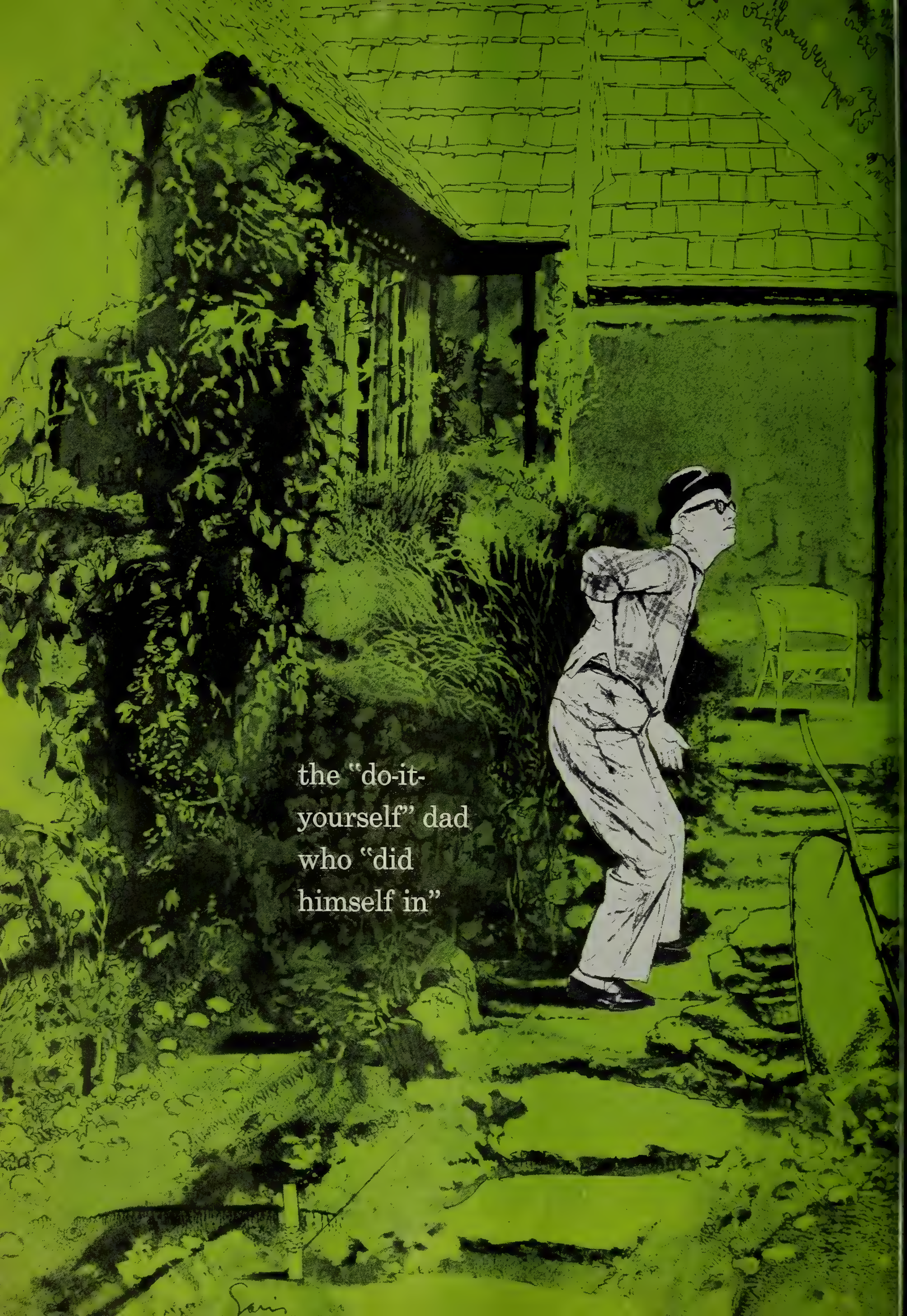

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following grants to the University of Missouri School of Medicine:

Dr. Hugh E. Stephenson, professor and chairman, Department of Surgery, $500.00 for help in the establishment of a blood vessel bank.

Dr. Arnold White, assistant professor, Department of Bio-Chemistry, $4,950,000, for the study of the process of calcification in tissue culture.

Dr. John H. Killough, associate professor, Department of Medicine, $5,100.00, for the study of pulmonary function during congestive failure and after recovery.

Dr. Dallas Meyer, professor in the Department of Physiology and Pharmacology, $2,000.00 for the study of cardiac metabolism of free and bound glycogen under varying cardiac work loads as determined by the rate of incorporation of glucose C-14 into the glycogen of the heart.

The Society of Sigma Xi, New Haven, has awarded a grant to Dr. Herbert Goldberg, associate professor, Department of Microbiology, in the amount of $250.00 for studies on the growth, morphology and physiology of the leptospira.

New Appointees

The University of Missouri School of Medicine announces the following additions to the staff:

Dr. Thomas S. Baker, assistant professor in the Department of Surgery. Dr. Baker received his M.D. degree in 1949 from the University of Indiana.

Dr. Robert Barnes, clinical associate in the Department of Medicine. Dr. Barnes received his M.D. degree from Duke University in 1948.

Dr. James T. Barrett, assistant professor in the Department of Microbiology. Dr. Barrett received his Ph.D. degree in 1953 from the University of Iowa.

Dr. John Cumming, clinical associate in the Department of Medicine. Dr. Cumming received his M.D. degree from the University of Toronto in 1949.

Dr. Kenneth D. Dolan, assistant instructor in radiology. Dr. Dolan received his M.D. degree in 1956 from Iowa University.

Dr. Fikri Melik Hanna, assistant instructor and third year resident in the Department of Pediatrics. Dr. Hanna received his M.D. degree in 1945 from the Egyptian University Faculty of Medicine.

Dr. Harold D. Harvey, assistant instructor and third year resident in the Department of Surgery. Dr. Harvey received his M.D. degree in 1954 from the University of Maryland.

Dr. Rodman P. Kabrick, assistant professor and clinical psychologist in the Department of Medicine. Dr. Kabrick received his Ph.D. degree in 1954 from the University of Iowa.

Dr. Kenneth K. Keown, professor of anesthesiology, in the Department of Surgery. Dr. Keown received his M.D. degree in 1941 from Hahnemann Medical College.

Dr. Harlan O. Loyd, clinical associate in the Department of Medicine. Dr. Loyd received his M.D. degree in 1940 from the University of Kansas.

Dr. William P. Pingleton, instructor in the Department of Obstetrics and Gynecology. Dr. Pingleton received his M.D. degree in 1952 from Northwestern University.

Dr. Thomas M. Prideaux, assistant instructor and first year resident in the Department of Pediatrics. Dr. Prideaux received his M.D. degree in 1945 from Tulane University.

Dr. Peter Torbey, assistant instructor and first year resident in the Department of Radiology. Dr. Torbey received his M.D. degree in 1953 from the University of Montpellier, France.

Dr. Ray Vickers, instructor in medicine. Dr. Vickers received his M.D. degree in 1950 in England.

Dr. Paul Zee, assistant instructor and second year resident in the Department of Pediatrics. Dr. Zee received his M.D. degree in 1954 at the University of Amsterdam, The Netherlands.

KANSAS CITY SOUTHWEST CLINICAL SOCIETY

Eugene P. Cronkite, M.D., pathologist-hematologist, Upton, New York, will be moderator for a symposium on "The Medical Effects of Radiation" on the opening day of the Kansas City Southwest Clinical Society Conference to be held September 30 to October 3, at the Municipal Auditorium in Kansas City. Guest speakers appear on page 869 of this issue.

Dr. Cronkite, June 3, 1957, testifying before a Senate-House atomic energy sub-committee studying fallout dangers forecast that nuclear war would have "unthinkable" results on all living things. Dr. Cronkite directed treatment of Pacific islanders accidently showered with H-bomb fallout. In his testimony before the subcommittee he stated that multiple H-bomb explosions in such a war "would produce radiation hazards for all living things and for generations to come."

Participants on the symposium include: Robert L. Corsbie, Ph.D., Washington, D.C., Director, Civil Effects Test Group, United States Atomic Energy Commission; Simon Kinsman, Ph.D., Cincinnati, Ohio, Chief, Radiological Health Training Program and Associate Chief, Training Section, Robert A. Taft Sanitary Engineering Center, United States Public Health Service; Justin J. Stein, M.D., Los Angeles, California, Professor, Radiology and Director, Cancer Research Institute, University of California.

Background information on our knowledge concerning medical effects of radiation will be presented. Biological effects of radiation from fallout, natural sources, x-rays, and industrial laboratory usage will be discussed. New research developments in prevention and treatment of the biological effects of radiation will be presented by the panel.

Symposium—"Asian Influenza"

A symposium on Asian Influenza also will be presented by the Kansas City Southwest Clinical Society at a round table luncheon September 30 at the Hotel President. Subjects and speakers:

"Origin and Spread of Asian Influenza," William H. Stewart, M.D., Coordinator, Asian Influenza Program, USPHS, Washington, D. C.

"Status of Vaccine Research and Immunological Problems," Tom D. Y. Chin, M.D., Asst. Director, USPHS Communicable Disease Station, University of Kansas Medical Center.

"Organizational and Mobilization Plans in Case of an Epidemic," H. M. Hardwicke, M.D., Acting Director of Health of Missouri, Jefferson City.

"Treatment of Asian Influenza and Management of Postinfluenzal Complications," Harold C. Lueth, M.D., Clinical Professor, Medicine, University of Illinois, Chicago, and Chairman, AMA Committee on Civil Defense, designated specifically to combat Asian Influenza.

DEATHS

Harris, Irwin J., M.D., St. Louis, a graduate of Washington University School of Medicine, 1901; honor member of the St. Louis Medical Society; aged 78; died June 14.

McNeel, John O., M.D., St. Louis, a graduate of the University of Virginia Department of Medicine, 1935; member of the St. Louis Medical Society; aged 49; died June 19.

Gallagher, William J., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1920; honor member of the St. Louis Medical Society; aged 64; died June 20.

Hopson, George, M.D., DeSoto, a graduate of the University of Tennessee School of Medicine, 1931; member of the Jefferson County Medical Society; aged 54; died July 4.

White, Homer E., M.D., Naylor, a graduate of the University of Louisville School of Medicine, 1909; member of the Butler-Ripley-Wayne County Medical Society; aged 75; died July 6.

Hatcher, Dock T., Jr., Pensacola, Florida, a graduate of Baylor University College of Medicine, 1950; member of the West Central Counties Medical Society; aged 31; died July 9.

Hall, James R., M.D., Kansas City, a graduate of the College of Physicians and Surgeons, Kansas City, 1904; honor member of the Jackson County Medical Society; aged 90; died July 24.

Stormont, Riley M., M.D., Webb City, a graduate of the Kentucky School of Medicine, 1898; honor member of the Jasper County Medical Society; aged 83; died July 25.

Lockwood, Ira H., M.D., Kansas City, a graduate of the Hahnemann Medical College and Hospital, Chicago, 1909; member of the Jackson County Medical Society; aged 72; died July 28.

BOOK REVIEWS

CURRENT THERAPY 1957. Latest Approved Methods of Treatment for the Practicing Physician. Edited by Howard F. Conn, M.D. Consulting Editors, George E. Burch; M. Edward Davis; Vincent J. Derbes; Garfield G. Duncan; Hugh J. Jewett; Perrin H. Long; Clarence S. Livingood; H. Houston Merritt; Walter L. Palmer; Hobart A. Reimann; Cyrus C. Sturgis; Robert H. Williams. W. B. Saunders Company, Philadelphia. 1957. Price $11.00.

This text has the prime purpose of providing the physician with the most recent concepts and methods of therapy of disease. Although many of the articles have been prefaced by a brief description of the disease under discussion, no effort has been made to supplant the standard textbooks of medicine.

It is apparent that the articles in this latest edition have undergone careful scrutiny. The majority have been revised and altered to include the most recent information available. A number of disease conditions not included in the previous edition have been added (for example, viral dysentery and dissecting aneurysm). A table of normal laboratory values of clinical importance has also been included.

It is difficult for the practicing physician to keep up to date on the entire field of medicine. This book remains an indispensible reference for anyone requiring the most recent information regarding treatment of disease. B. L. T.

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Dermatology, by Donald M. Pillsbury, M.D., Professor and Director of Department of Dermatology, University of Pennsylvania School of Medicine; Member of National Advisory Health Council, United States Public Health Service; Director, Commission on Cutaneous Diseases, Armed Forces Epidemiological Board; and Walter B. Shelley, M.D., Associate Professor of Dermatology, University of Pennsylvania School of Medicine; Chief of Dermatology Clinic, Hospital of the University of Pennsylvania; Member, Subcommittee on the Cutaneous System, National Research Council; Area Consultant, Dermatology, Veterans Administration; and Albert M. Kligman, M.D., Associate Professor of Dermatology, University of Pennsylvania School of Medicine; Associate Professor of Dermatology, University of Pennsylvania Graduate School of Medicine. W. B. Saunders Company, Philadelphia. 1956. Price $20.00.

This book is of especial value to the practitioner who is not already a dermatologist. As the authors state in the preface, they "have attempted to keep in mind the viewpoint of students and physicians who have had little or no experience in the field of dermatology."

The organization of the text deserves commendation. Dermatologists will find Section II well worth reading on the "Basic Principles of Allergy," and "Hypersensitivity Pertaining to Dermatology." "Principles of Diagnosis," as presented in Section III, should prove helpful to students, interns and physicians inexperienced in the specialty.

The writing is clear, concise and informal. The authors have attempted to simplify the field of dermatology by omitting references and synonyms whereever possible. While they might be criticized because of such omissions, the policy is consistent with their purpose of creating a volume of value as a quick reference to the uninitiated. N. D. A.

Roentgen Signs in Clinical Diagnosis, by Isadore Meschan, M.D., Professor and Director of the Department of Radiology at the Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, North Carolina. With the assistance of R.M.F. Farrer-Meschan, M.B., B.S., Melbourne, Australia. 2216 Illustrations on 780 Figures. W. B. Saunders Company, Philadelphia. 1956. Price $20.00.

This book is unusual from two standpoints. For a single volume to cover so many aspects of diagnostic radiology in such a complete manner is indeed remarkable. The organization of the book into type of x-ray appearance rather than by disease is a distinct change from the ordinary radiological text. Because of the latter treatment one may determine the type of radiographic appearance and then find various examples of the abnormality with discussion of the disease entity thus obtaining a complete differential diagnosis. For example, a single chapter is devoted to nodular lesions of the lung parenchyma and another is devoted to lesions of the lungs characterized by increase in linear markings.

The text is further enhanced by an excellent introductory section which includes fundamental x-ray principles along with a discussion of positioning and darkroom technic. There is an anatomic review along with multiple good roentgenograms of the various pathologic conditions. Many sketches are included which aid the reader in understanding some of the x-ray reproductions and are also an aid in interpretation of radiographs.

Because of the manner of presentation and because of the completeness, the text is recommended for all students, both graduate and undergraduate in radiology. All radiologists will find this outstanding as a general reference. S. E. B.

Clinical Use of Radioisotopes, by William H. Beierwaltes, M.D., Associate Professor of Internal Medicine and Coordinator, Clinical Radioisotope Unit, University Hospital, Ann Arbor; and Philip C. Johnson, M.D., Assistant Professor of Internal Medicine and Chief, Radioisotope Unit, Veterans Administration Hospital, University of Oklahoma Medical School, Oklahoma City; and Arthur J. Solari, B.S., M.D. (Physics), Instructor in Radiation Physics, Department of Radiology, Radiation Physicist for Clinical Radioisotope Unit and Kresge Research Isotope Unit, University Hospital, Ann Arbor. Illustrated. W. B. Saunders Company, Philadelphia. 1957. Price $11.50.

This is an outstanding textbook on the present application of radioactive isotopes to clinical medicine. The authors clearly state in the first chapter the importance of physics and its understanding to the field of isotopes. They outline the requirements of the Atomic Energy Commission and how to apply for license. The greatest part of the book is in the presentation of the application of radioactive iodine to the thyroid gland. I believe this is covered in an outstanding manner. The portion of the text concerning the treatment of leukemia is brief but adequate.

No other text deals so well wth the less commonly used radioactive isotopes. Each is discussed with its present day concept, thus giving this text a broader spectrum. Every important medical application of radioisotopes is covered.

It is my belief that this is the most complete text on radioactive isotopes published thus far. J. W. F.

General Urology, by Donald R. Smith, M.D., Clinical Professor of Urology and Chairman of the Department of Urology, University of California School of Medicine, San Francisco; Consulting Urologist, San Francisco Hospital; Consulting Surgeon (Urology), Veterans Hospital, San Francisco; Chief of the Department of Urology, St. Luke's Hospital, San Francisco. Illustrated by Ralph Sweet. Lange Medical Publications, Los Altos, California. 1957. Price $4.50.

This concise and well arranged synopsis on the essential aspects of general urology has been devised to meet the needs of the medical student and general practitioner. Emphasis is placed particularly on the practical side of the subject, but sufficient attention is also given to theoretical considerations so that it provides an excellent adjunct for the use of student and urological lecturer. The illustrations are well chosen and pertinent to the text. Bibliographic references are adequate for the purposes of this handbook.

This up-to-date and excellently written handbook in outline form, presents comprehensive urological information in a most admirable manner for ready reference. J. M. M.

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Pediatric Cardiology, by Alexander S. Nadas, M.D., Assistant Clinical Professor of Pediatrics, Harvard Medical School; Cardiologist, the Children's Hospital; Physician, Sharon Cardiovascular Unit, Children's Medical Center, Boston. Illustrated. W. B. Saunders Company, Philadelphia. 1957. Price $12.00.

This is a significant and valuable work. Orignating from the Children's Medical Center at Boston, it is reminiscent of the classical volume by Robert Gross on "The Surgery of Infancy and Childhood." Like that work, it is derived largely from the experiences at the Children's Hospital during a period of ten years when cardiovascular diagnosis and treatment has been developing at an unprecedented pace. The author has developed with the field in which he works and his personal convictions and conclusions stand out prominently in every chapter. At a time when the increasing complexity of modern medicine has led to the fairly uniform practice of multiple authorship in textbooks, it is refreshing to encounter one which sets out the views of one man as distilled from an extensive clinical experience.

Despite the largely personal basis for this work, it is in no way incomplete or lacking in organization. Its roughly 550 pages cover all phases of acquired and congenital heart diseases in children with emphasis on the congenital aspects. While disclaiming any pretensions to write a reference book, the author has compiled a substantial volume which covers even the uncommon entities of pediatric cardiology with clarity and precision.

Some idea of the speed with which the field is developing may be gained from the fact that the book was published in 1957 and in the ensuing half year certain of its statements are definitely outdated. For example, on page 370 it is stated that there is no available treatment at present for ruptured aneurysm of the sinus of Valsalva. Successful treatment for this condition has been reported from a number of institutions and a second edition of this text will undoubtedly comment on this progress. Similarly on page 321, the therapeutic status of ventricular septal defect is presented in a much less favorable light than the multiple instances of successful closure reported from many clinics would seem to warrant. These comments simply highlight the well-known fact that medical textbooks must be in process of revision even before they have been bound and distributed.

There is much to commend in this volume including its convenient size, its excellent format, the substantial index and a list of references which is long enough to lead the student or practitioner farther into the subject without attempting to list the thousands of contributions in this field during the last decade. The work is highly recommended for all segments of the profession. C. R. H.

Missouri Medical Meetings

Missouri State Medical Association Annual Session, St. Louis, April 13-16, 1958.

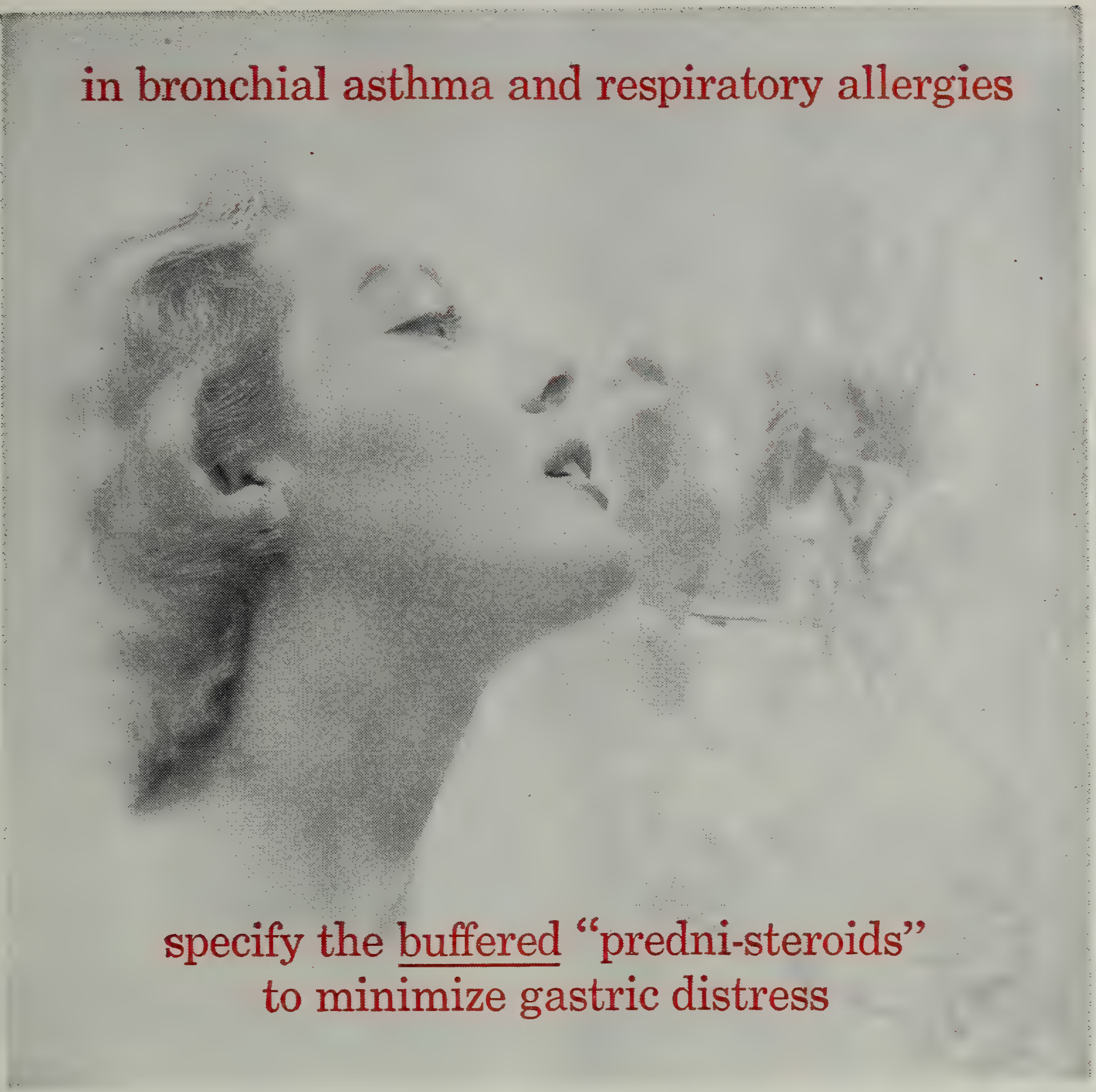
Kansas City Southwest Clinical Society, Conference, Sept. 30-Oct. 3, 1957, Kansas City.

Missouri Academy of General Practice, Annual Meeting, Governor Hotel, Jefferson City, October 30-31, 1957.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Society—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—third Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—fourth Tuesday of each month except June, July and August, at auditorium of General Hospital No. 1.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets third Friday of each month.
Johnson County Medical Society—meets only on call.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark-Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Webster County Medical Society—meets only on call.
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.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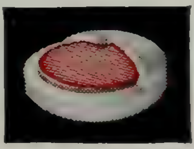

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News

An evening was set aside in July to honor an Aurora physician who had practiced in that community since 1921. The guest of the evening was **R. D. Cowan,** M.D., Aurora, who had recently announced his retirement. In addition to a band concert, a brief ceremony was held at which respects were paid to Dr. Cowan by the Rev. Milton Klein and Mayor J. Finis King. A large crowd of friends and former patients were present to pay their respects to Dr. Cowan who, in addition to his 36 years of medical service to the community, also served three terms as Aurora's mayor.

Heading the Kirkwood Bloodmobile Drive, July 12 and 13, was the newly appointed chairman, **Lois Wyatt,** M.D., Kirkwood. Dr. Wyatt appeared on Channel 4, KWK-TV, prior to the drive and explained some of the aspects of donating blood.

One of the speakers at the annual meeting of the 13th District of the Missouri Division of the American Cancer Society held at Mt. Vernon in June was **R. E. Kirschman,** M.D., Joplin.

The Board of Education of the Salem School District recently elected **B. J. Bass,** M.D., Salem, to fill a vacancy on the board.

The First Baptist Church and the community of Richmond paid their respects to a most revered citizen and a retired physician, **L. D. Greene,** on the occasion of his 90th birthday, July 18. Dr. Greene has given many years of medical service to his community since going to Richmond 66 years ago. Dr. Greene also served three terms in the House of Representatives of the General Assembly of Missouri as well as a member of the Board of Regents of the Maryville State Teachers' College.

Houston was recently the scene of impressive ground breaking ceremonies for the proposed Texas County Memorial Hospital. Honor was given to the deceased physicians of the county, and tribute was paid to the senior doctor of the county, **Leslie Randall,** M.D. For many years a physician and civic leader in Licking, Dr. Randall praised the efforts for a new county hospital. The various groups in the community that had worked for the new hospital were called upon to express their interest in the hospital and turned a shovel of dirt for the people they represented. **Garrett Hogg,** M.D., Cabool, as senior practicing doctor of Texas County, represented the doctors.

The *Lebanon Record* on July 25 carried an article and picture of **J. H. Summers,** M.D., Lebanon, who was to be honored that evening by the Mid-Missouri Medical Society for his 25 years of medical service to the community. A graduate of Drury College and the Washington University School of Medicine, Dr. Summers has practiced medicine in Lebanon since 1932, except for four and a half years service with the Army Air Corps during World War II, serving in England, France and Germany. Having headed the Laclede County Medical Society and the Wallace Hospital Board, Dr. Summers is now serving as vice chairman of the Council of the Missouri State Medical Association. On the evening of July 24, Dr. Summers was also honored at an anniversary dinner given by Dr. **Paul A. Jenkins** and was presented with a memento commemorating the anniversary of his years of practice.

The Columbia Rotary Club had as its guest speaker recently **Samuel P. W. Black,** M.D., associate professor of surgery at the University School of Medicine, who spoke on new medical research fields.

"The Chemical Approach to Tranquility and Its Impact on Pharmacy and Medicine" was the subject used by **Keith D. Jones,** M.D., Warrensburg, speaking before the West Central Missouri Retail Druggists Association at a recent meeting.

"A Doctor Looks at Cancer Control" was discussed by **W. F. Francka,** M.D., Hannibal, at the 1957 meeting of districts three and four of the Missouri Division of the American Cancer Society in Palmyra on June 14. Also appearing on the program with Dr. Francka was **J. W. Well,** M.D., Palmyra.

The St. Joseph Lions Club had as speaker recently **Herbert C. Senne,** M.D., St. Joseph, who spoke on "Hardening of the Arteries, Man's Worst Enemy."

The Lamar Business and Professional Women's group had as guest speaker at a recent meeting **Thomas W. Carroll,** M.D., Lamar, who spoke on the duties of the county health physician.

A well known Warrensburg physician has announced his retirement from active practice. **William R. Patterson,** M.D., Warrensburg, after 66 years in the practice of medicine, 47 years of which has been in Warrensburg, will continue to maintain a business office at his home, 508 N. Holden Street, Warrensburg.

The Ozark Regional Heart Association held its annual meeting in Springfield on June 25. **Hugh E. Stephenson,** M.D., Columbia, was the guest speaker and spoke on recent developments in cardiac research. **Harry Silsby,** M.D., Springfield, was elected president for 1958, and **James T. Brown,** M.D., Springfield, vice president. Dr. Brown was also elected to the board of directors for a three-year term. Members of the board of directors reelected for three year terms were Drs. **James T. Good, George B. Lemmon, Jr., Harry Silsby, Glenn O. Turner,** and **E. E. Glenn,** all of Springfield.

The *Rolla News* carried a feature article recently on a well known native Phelps County physician who was chosen to head the Centennial Committee to plan the 100th birthday of the county. He is **E. A. Stricker**, M.D., St. James. The article also mentioned the late Dr. Will Breuer who helped and encouraged Dr. Stricker in his study of medicine.

The Southern Medical Association held ground breaking ceremonies for its new office building, August 4, to be located at Highland Avenue and Niazuma, Birmingham, Alabama.

The Missouri Association of Medical Record Librarians will hold its annual meeting September 19 and 20, Hotel Statler, St. Louis.

The St. Joseph Mental Health Association at its June Board meeting elected **H. E. Wachter**, M.D., St. Joseph, as president.

TUBERCULOSIS ABSTRACT

TUBERCULOSIS ORGANISMS RESISTANT TO DRUGS

Improved surgical techniques, modern drug therapy and an increasing trend toward home care have resulted in a pronounced shortening of the hospital stay of patients with tuberculosis.

Persons who have had this disease are living longer and this increased length of life and the care of the patients at home, plus drug therapy which nearly all patients receive, have created problems of their own. Two of these were made the subject of a study, sponsored by the California Tuberculosis and Health Association, namely: The incidence of hospitalized patients in whom the tubercle bacilli are resistant to anti-tuberculosis drugs on first admission; and the rate of relapse among tuberculous patients who have been discharged previously from any tuberculosis hospital.

PLAN OF STUDY

A questionnaire requesting information concerning admissions, discharges, evidence of drug-resistant organisms in sputum, and relapse rates was sent to 15 tuberculosis hospitals with 4,121 beds among the state's approximately 11,500 beds for tuberculosis. To obtain a valid sample, a small research hospital, a large county hospital, a group of medium sized county sanatoriums and a private hospital were included.

Four specific questions were included in the questionnaire. They were:

1. What is the incidence of patients who have left your hospital for any reason whatever and who have a positive sputum?

2. What is the incidence of patients *discharged* with positive sputum whose sputum possesses organisms resistant to one of the anti-tuberculosis drugs and to which drug(s)?

3. What is the incidence of patients *admitted* to your hospital for the first time with positive sputum, whose organisms are found to be drug-resistant to one or more anti-tuberculosis drugs, and to which drug(s)?

4. What is the percentage of patients admitted to your hospital after having once been discharged from any institution as inactive?

An early inquiry here indicated that no nationwide data are available on relapse rate or on sputum status of patients admitted to hospitals.

However, in 1955 Chaves and co-workers reported on 898 patients observed by physicians in the New York City Department of Health for a period of 18 months. M. tuberculosis was demonstrated by culture of the specimens of 385 patients. Of the 43 patients (11 per cent) from whom strains were isolated which showed any resistance to streptomycin or isoniazid, only 15 (3.9 per cent) were significantly resistant. These 15 made up 1.7 per cent of the series of 898.

Beck reported ten cases of pulmonary infection with drug-resistant tubercle bacilli in a five year study of 600 cases of newly diagnosed tuberculosis admitted to a New York State Tuberculosis Hospital. This is about 2 per cent of the 480 who had positive sputum, or 1.7 per cent of the 600 studied.

In our study among a total of 5,559 patients discharged from 15 institutions in 1954, 879 or 15.8 per cent had sputum positive for tubercle bacilli at the time of discharge. The lowest rate for any of the 15 institutions was 1.9 per cent and the highest was 28.3 per cent. Many of the discharges were, of course, against medical advice.

During the year 1954, the 15 institutions reported an average length of stay of 240.8 days, reflecting the trend toward a shorter hospital stay.

INCIDENCE OF PATIENTS ADMITTED TO FOUR INSTITUTIONS WITH POSITIVE SPUTUM IN WHOM ORGANISMS WERE RESISTANT TO ONE OR MORE ANTI-TUBERCULOSIS DRUGS*

Institution Number	*Total First Admission 1954*	*Total First Admissions, Positive Sputum and Drug Resistant*	*Per Cent Positive Sputum and Drug Resistant*
3	377	45	11.9
5	160	15	9.4
7	67	17	25.4
13	158	12	7.6

* Includes all drugs.

The table shows the number of sputum-positive patients admitted to four institutions who were found to be resistant to one or more of the anti-tuberculosis drugs. At the time of this study, only four of the fifteen institutions included reported that drug sensitivity tests were being conducted. For those four hospitals, the total number of patients admitted during 1954 was 762, of which 89

Issued by the National Tuberculosis Association.
By John L. Gompertz, M.D., and Donald E. Porter, *California Medicine*, December, 1956.

AN ANNOUNCEMENT TO THE MEDICAL PROFESSION OF

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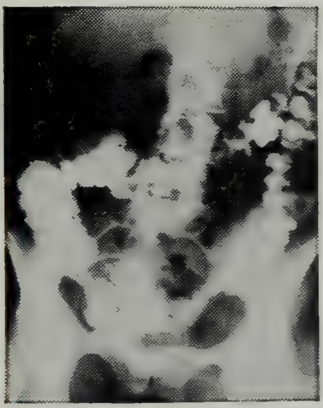

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(11.7 per cent) had positive sputum with organisms resistant to one or more anti-tuberculosis drugs.

The four institutions reporting as having conducted drug sensitivity tests had a total of 762 first admissions during 1954. Of these patients, 13 (2.4 per cent) were found to be resistant to para-amino salicylic acid, 26 (3.4 per cent) to isoniazid and 34 (4.5 per cent) to streptomycin.

Thus 7.9 per cent of the total number of patients admitted were found significantly resistant to isoniazid or streptomycin. This is about four times the incidence reported by both Chaves and Beck (1.7 per cent of each total series studied).

Ten of the 15 institutions reporting submitted complete data relative to the number of patients admitted who had been discharged from any tuberculosis hospital previously with disease inactive. The rate of relapse among patients in these ten institutions in 1954 is, approximately one of every five patients admitted.

These data are probably not [very] accurate as the patient's word was taken for the diagnosis at the time of previous discharge. Some patients may have been ignorant or forgetful, particularly those who left against medical advice.

Several interesting and significant facts came to light: In the 15 institutions reporting, the proportion of patients discharged with sputum positive for tubercle bacilli averaged 15.8 per cent. The range of 1.9 to 28.3 per cent was very wide and the disparity was unexplained. One might hazard the guess that those hospitals having the higher rates also had a high rate of patients signing out against medical advice.

Only four of the 15 institutions reported drug sensitivity tests of positive sputums on entry. No reliable data as to drug resistance could be found for patients who had a positive sputum at the time of discharge. Drug sensitivity studies are important in workmen's compensation cases and from a public health and treatment standpoint. More tuberculosis institutions should be encouraged to carry out drug sensitivity studies on sputum.

The importance of drug sensitivity studies on the bacilli of patients being considered for operation cannot be emphasized too strongly.

The significance of present drug resistance studies is not entirely clear, as there are differences of opinion regarding the pathogenicity of some drug-resistant bacilli.

The probability is that as more drugs are used in treating tuberculosis, more resistant strains will be developed. Among patients admitted to the hospital for the first time whose sputum was positive for tubercle bacilli, 11.7 per cent had organisms resistant to one or more anti-tuberculosis drugs.

More research is necessary to ascertain the nature of resistant organisms, and to prevent resistance from occurring. Perhaps a way can be found to cause the bacilli to revert to a sensitive state.

The proportion of readmittances to tuberculosis hospitals is sizeable. Perhaps it should not be called a relapse rate, inasmuch as not enough is known about the facts behind previous admissions. In any case, an average readmittance rate of 19.2 per cent seems much higher than it should be.

Gird for Possible Asian Flu Epidemic

The Asian Influenza epidemic predicted for this fall or winter is being given a big play by the press, radio and TV.

If an epidemic should start before the vaccine becomes widely available, there could be a mad scramble by the public for the shots.

To help avert this a public education program is to be handled in Missouri by an advisory committee composed of representatives from the Missouri State Medical Association and other health groups. This committee will be headed by Dr. H. M. Hardwicke, acting director of the state's Division of Health.

Physicians and other interested persons, in turn, will be kept informed of the latest developments by this committee.

Dr. Hardwicke has said the state does not intend to purchase vaccine for distribution. Instead, regular medical channels will be utilized.

However, the United States Public Health Service has recommended the shots be given on a priority basis. Ones getting them first should be important to nation's health, communication and transportation, and other vital services such as food workers.

There are no definite dates as to just how fast the vaccine will be made available to individual doctors by the six licensed drug firms manufacturing the serum.

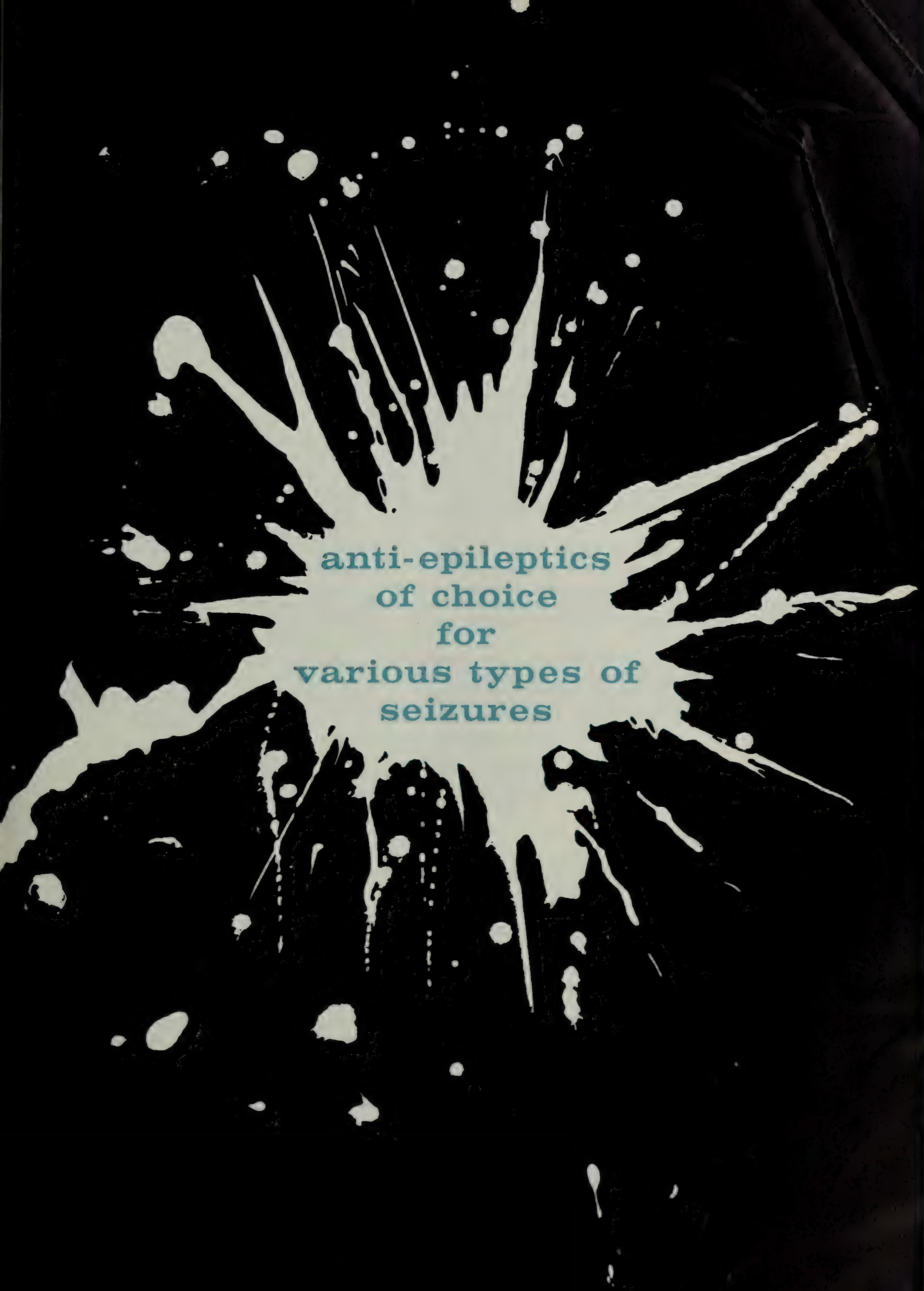
Surgeon General Leroy E. Burney expects 8 million shots to be ready by the middle of this month, with half of it going to the Armed Forces. Sixty million shots are expected to be turned out by February. Most of it will be monovalent to handle the type A virus.

A "shot" amounts to one cc. The USPHS considers one per person to be sufficient, but two 1 cc. shots a week apart is preferred. The vaccine is believed to be about 70 per cent effective at present in preventing the flu.

The American public "is assumed to be susceptible," Dr. Tom D. Y. Chin with the USPHS said at a joint Missouri-Kansas meeting held August 11 in Kansas City.

The meeting was called by Dr. Carroll P. Hungate of Kansas City, member of the American Medical Association's Committee on Influenza. The MSMA was represented by Dr. Ralph Perry of Kansas City, Councilor from the 7th District.

Common flu symptoms are a high fever, headaches, a sick feeling all over and often a dry cough. The attacks last from two to five days. The attack rate in the Far East epidemics was about 20 per cent with a death rate of 0.2 per cent, largely among the very young and very old.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Missouri Medicine

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Curiosa et Trivia

William B. McCunniff, M.D.

Denmark reported only one case of polio last year—in a patient who had not had Salk vaccine.

Newcomer to the field of medical journalism, the very top-drawer *M.D.* received over two thousand letters of commendation after its first issue.

University of Glasgow graduate (class of 1837), James McCune Smith, M.D., was the first Negro medical graduate.

Of 218,000 M.D.'s in the United States, 60,000 do not belong to their local medical society . . . much less attend the required 50 per cent of staff meetings!

Hospital costs for maternity care have dropped about 10 per cent since 1930. Physicians' fees have risen 90 per cent, but patients get more prenatal care.

Tuberculosis is the No. 1 contagious killer in America. Yet nearly half of the *known* cases are not in hospitals.

Capsule Clinics

I. A. Wien, M.D.

- The mushroom catheter is an aid in determining the patency of the sphincter of Oddi and is also helpful in removing stones in the ampulla of Vater; it is felt easier within the duodenum than a Bake's dilator. Colcock, B. P.: Lahey Clin. Bull. **10** (Jan.-March) 1957.
- Brilliant results in the treatment of gout have followed the use of probenecid (Benemid); failure occurs only in those patients with organic renal disease. Bartels, E. C.: Lahey Clin. Bull. **10** (Jan.-Mar.) 1957.
- The new intravenous iodine preparation, biligrafin, has the property of concentrating in the common bile duct and outlining it; it has been helpful in some cases in determining the presence of obstruction of the common bile duct. Walters, W., et al.: Proc. Staff Meet. Mayo Clin. **30** (Feb. 23) 1955.

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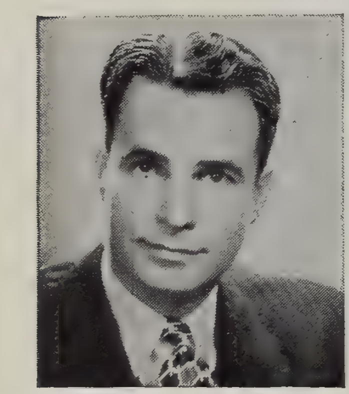
Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

Several cases of infantile paralysis in Kansas City during September caused the Health Department to adopt special precautions against its becoming epidemic. Dr. D. Lee Dorsett of St. Louis has been appointed chief surgeon of the police department to succeed Dr. George W. Wilson, who resigned to take a position with the Rockefeller Research organization.



Mr. George A. Meyer, president of the International Bank, St. Louis, has donated $2,500 annually to maintain a free dental clinic for school children, and the board of education has accepted the donation.

On August 6, Dr. Floyd S. Bates of Adrian, Mo., who had been commissioned a lieutenant in the Medical Reserve Corps, stationed at Fort Riley, was killed instantly by lightning during a storm at the fort. Lieutenant George W. Belsche of Trenton, a member of the Grundy County Medical Society, was injured badly.

Red Cross Ambulance No. 24, organized in Kansas City, has been ordered to Camp Funston, Fort Riley. The company is in charge of Capt. E. W. Cavaness of Kansas City, a member of the Jackson County Medical Society. The other physicians in the company are Lieuts. Harvey McCarthy, Joseph A. Beebe, Elmer J. Billick and Harry C. Antie.

William Dock, a son of Dr. George Dock of Washington university, St. Louis, has been decorated with the War Cross by the French government for conspicuous bravery. He is serving in the American ambulance field service. George Dock, Jr., another son of Dr. Dock, is in the aviation service in France and received the decoration last Spring.

The Rockefeller Institute for Medical Research recently has opened a War Demonstration hospital on the grounds of the Institute at Avenue A and 64th Street, in New York City. The funds for this purpose were provided by a special appropriation of the Foundation. The purposes of the hospital are to treat patients suffering from infected wounds by methods which have been developed in European Army hospitals, especially the methods developed by Dr. Alexis Carrel and Dr. H. D. Dakin in the Military Hospital at Compiègne, France.

A fake doctor has been swindling people in Dunklin County by representing himself a specialist on catarrh. He induced several well-to-do farmers to have their cases diagnosed by him, pronounced them suffering from catarrh in each case. He told them he could cure them by an operation, which he guaranteed. Several of the victims took the alleged cure and signed papers to that effect. The doctor then proceeded to operate by "burning out the disease," he claimed. He then immediately pronounced the patient cured and demanded his pay.

Apropos of the care of the inmates at State Hospital No. 4 at Farmington, under the management of the new superintendent, Dr. J. L. Eaton, the Fredericktown *Democrat-News* comments editorially as follows: "Reports from Farmington indicate that there is a new order of things at Hospital No. 4. The first thing Dr. Eaton did, upon assuming charge, was to order more and better food for the patients. The public will heartily commend that act."

TWENTY-FIVE YEARS AGO

The Buchanan County Medical Society was entertained at its opening fall activities by an annual chicken dinner at the Woodson Sanitarium, September 7. The custom was inaugurated about twenty-five years ago by the late Dr. C. R. Woodson, founder of the sanitarium. The custom has been perpetuated by his daughter, Mrs. Julia Woodson Edmunds, superintendent of the sanitarium. Approximately 150 physicians attended the dinner.

The Jackson County Medical Society voted September 6 to move its library and headquarters to the General hospital. The vote was taken after Mr. H. F. McElroy, city manager, offered the society the use of rooms in the hospital. The Society had had its headquarters in the Medical Arts Building where no rent was paid. When the building was taken over recently by a holding corporation the free rent stopped.

Our President, Dr. Joseph W. Love, Springfield, visited headquarters at St. Louis on September 14. At 2:30 in the afternoon he was the guest of the St. Louis County Medical Society, Clayton. On the following day, through the courtesy of Dr. John L. Roemer, president of Lindenwood College for Young Women, St. Charles, Dr. Love addressed the first student assembly of the season at the college.

A proposal that families with incomes of $2,700 or less a year should receive all needed medical service for a fee of 3 per cent of their incomes was defeated at a meeting of the Omaha-Douglas

(Continued on page 988)

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

The Missouri Academy of General Practice will hold its 9th Annual Scientific Assembly on October 30 and 31 at the Governor Hotel, Jefferson City. Ten hours category I postgraduate credit for AAGP members.

PROGRAM

Tuesday, October 29

7:00 p.m. Business session with Board of Trustees.

Wednesday, October 30

9:00 a.m. Business Session.

SYMPOSIUM ON ENDOCRINOLOGY

10:00 a.m. Iatrogenic Thyroid Disease, Thomas W. Burns, M.D., Columbia.

10:15 a.m. Relative Value of Different Thyroid Tests, Edward H. Hashinger, M.D., Kansas City.

10:30 a.m. Management of Nontoxic Nodular Goiter, Daniel L. Sexton, M.D., St. Louis.

10:45 a.m. Oral Antidiabetic Compounds, Dr. Burns.

11:00 a.m. The Use and Abuse of Androgens and Estrogens, Dr. Sexton.

11:15 a.m. Obesity and Its Management, Dr. Hashinger.

11:30 a.m. Panel on Endocrinology.

12:00 noon Lunch and Viewing Exhibits.

SYMPOSIUM ON GASTROENTEROLOGY

1:30 p.m. Newer Concepts of Achalasia (Cardiospasm) of the Esophagus, Nicholas Hightower, M.D., Temple, Texas.

1:45 p.m. Diagnosis and Treatment Relative to Carcinoma of the Esophagus, H. M. Pollard, M.D., Ann Arbor, Mich.

2:00 p.m. Upper Gastrointestinal Bleeding: Roentgen Aspects, Don C. Weir, M.D., St. Louis.

2:15 p.m. Physiological Basis for Medical Management of Uncomplicated Duodenal Ulcer, Dr. Hightower.

2:30 p.m. Treatment of the Bleeding Peptic Ulcer, Eugene M. Bricker, M.D., St. Louis.

2:45 p.m. X-Ray Therapy in Peptic Ulcer, Dr. Weir.

3:00 p.m. Intermission to View Exhibits.

3:30 p.m. Recent Developments in the Problem of Gastric Carcinoma, Dr. Pollard.

3:45 p.m. Indications for Operation in Gastric Ulcer, Dr. Bricker.

4:00 p.m. Complications of Chronic Ulcerative Colitis and Their Management, Dr. Hightower.

4:15 p.m. Carcinoma of the Pancreas, Dr. Pollard.

4:30 p.m. Panel on Gastroenterology.

5:00 p.m. Adjournment.

7:30 p.m. President's Installation Banquet and Dance. Speaker: Dr. Leon Hill, Amarillo, Texas.

Thursday, October 31

SYMPOSIUM ON CHEST DISEASES

8:30 a.m. Hemoptysis in Older Men, Katharine Boucot, M.D., Philadelphia, Pa.

8:45 a.m. Bronchoscopy in Diagnosis of Diseases of the Chest, Herman J. Moersch, M.D., Rochester, Minn.

9:00 a.m. Pleural Effusion, Paul Murphy, M.D., St. Louis.

9:15 a.m. The Enhanced Current Significance of the Tuberculin Test, Dr. Boucot.

9:30 a.m. Pulmonary Infarctions, Dr. Moersch.

9:45 a.m. The Role of Surgery in the Management of Unilateral Pleural Effusions, Thomas H. Burford, M.D., St. Louis.

10:00 a.m. Intermission to View Exhibits.

10:30 a.m. Problems of the Isolated Nodular Lesion in Chest X-Ray, Dr. Moersch.

10:45 a.m. Lung Cancer Detection With Emphasis on the Limitation of Roentgen Examination, Dr. Boucot.

11:00 a.m. Surgical Approach to Lung Cancer, Dr. Burford.

11:15 a.m. Treatment of the Terminal Case of Lung Cancer, Dr. Murphy.

11:30 a.m. Panel on Chest Diseases.

12:00 noon Lunch and Viewing Exhibits.

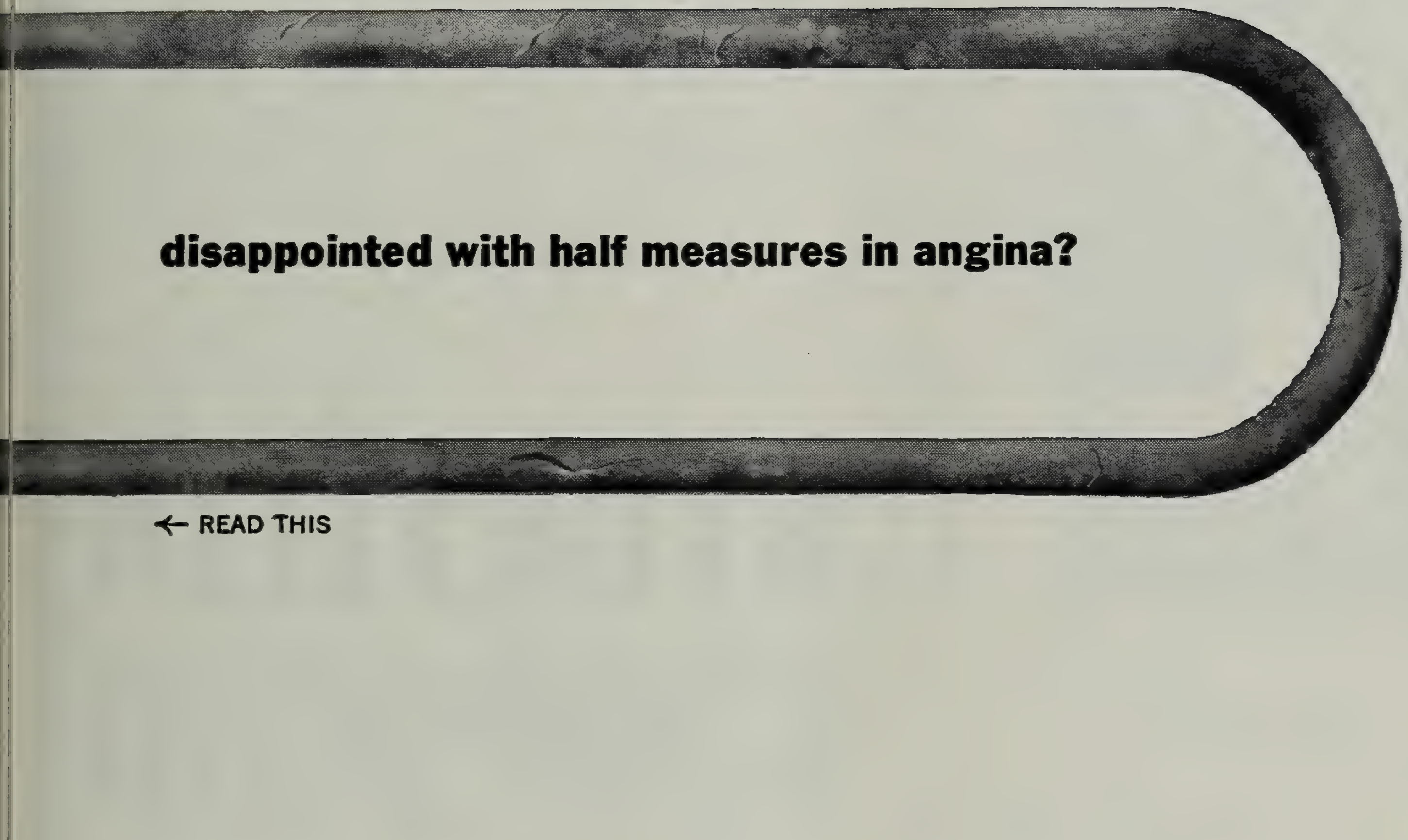
1:00 p.m. Heart Disease in Pregnancy, James G. Janney, M.D., St. Louis.

1:45 p.m. Intermission to View Exhibits.

2:15 p.m. The Present Place of Surgery in Heart Disease, Charles P. Bailey, M.D., Philadelphia, Pa.

3:00 p.m. Treatment of the Arrythmias, William A. Sodeman, M.D., Philadelphia, Pa.

3:45 p.m. Adjournment.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WASHINGTON

The first session of the 85th Congress that adjourned in late August passed only a handful of health and medical bills that could be considered significant.

However, there are major subjects such as hospitalization under Social Security, Federal aid to medical schools and Federal employee health insurance that were held over until next year. Bills not finally acted upon retain their legislative position in the session opening in January—and next year is an election year.

Laws passed this session included a revised doctor draft act (see below for details), codification of all veterans' benefit laws, amendment of the program for Federal payment for medical care of public assistance cases, authorization of Federal grants to build hospitals for use of Indians and non-Indians, and improvement of career prospects for military nurses.

The bill to raise the pay for physicians and certain others in the VA was approved by the House Veterans Affairs Committee and will be pending next session.

The drafting of physicians and dentists has been postponed for the fiscal year 1957-58. A directive to this effect has been issued by Lewis B. Hershey, Selective Service director. It clarifies the position of potential inductees who were in the mill when the doctor-draft law was renewed for another two years. It now expires July 1, 1959.

The Washington Report on the Medical Sciences says that local boards have been told not to issue any orders calling up doctors for physical examination. And in cases where examination has been given and the doctor classified available for military service, induction orders are to be postponed.

Two measures, one of which probably will be known as the A.F.L.-C.I.O. bill, were introduced at the very end of the session which would greatly liberalize a wide range of social security benefits.

Specifically, one would provide hospitalization for those receiving social security retirement (but not disability) benefits, or eligible for them. In addition surviving widows and children also would be covered by the hospitalization plan.

(Continued on page 982)

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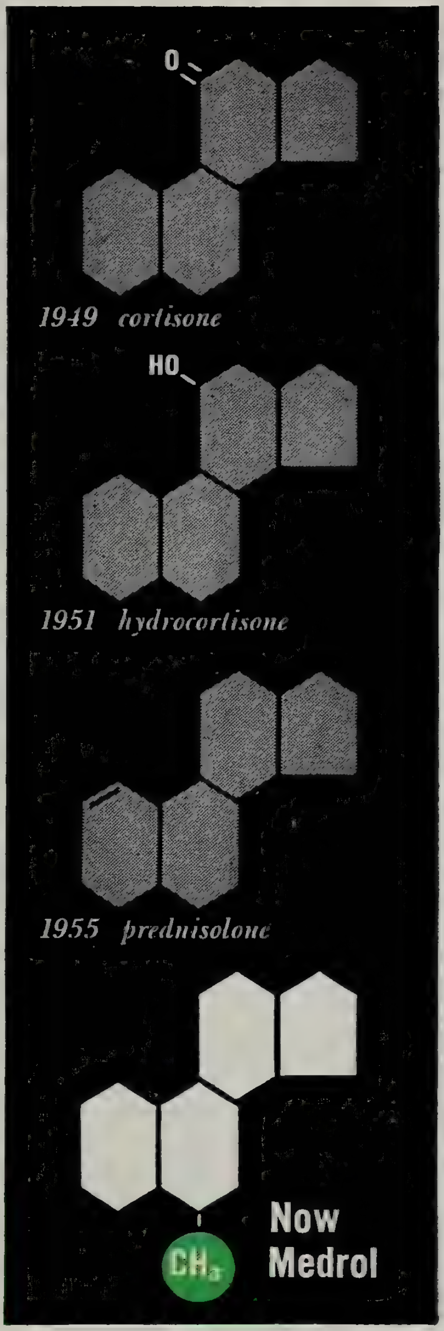
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Woman's Auxiliary

MRS. ARMAND D. *(Ruth Anne)* FRIES, *President*

Summer has come to its close, and though the heat of the day may sometimes belie that fact, shorter days and cooler nights announce to us that our beautiful Autumn season has come. September always brings with it added activity, and on every hand life seems to take on added impetus.

Many of our Medical Auxiliaries already have resumed their activities following the summer holiday while other counties will hold their opening meeting this month. Regardless of the opening date, there should always be a feeling of anticipation and enthusiasm among Auxiliary members for the new group of officers and the new program that has been planned. Very soon after the officers are elected, their special committees are chosen. Together they work many hours discussing, formulating and perfecting plans for the year ahead.

With a diversified program, something of interest is planned for all Auxiliary members. Yet even with thoughtful plans, there is always a feeling of concern as to the outcome of these plans. The success or failure of the program does not rest solely on those who have planned it, but on each and every member rests the responsibility to do her share. It is hoped that every doctor-husband will be interested in the Auxiliary program and encourage his wife to support its activities.

Our national president this year is stressing the importance of the local Medical Society and its Auxiliary working together as a team. Her slogan "Health Is a Joint Endeavor," means just that. She has requested four priority projects be emphasized this year. They are: American Medical Education Foundation, *Today's Health* Magazine, Legislation and Safety. The other projects we pursue throughout the year should be gauged to the needs of our own locality.

Within our Medical Auxiliary you will have an opportunity to further the traditions of medicine. You may participate in service projects and put your own special talents to work to make your leisure hours worthwhile. At meetings you will find a nice balance between education about issues affecting the medical profession and entertainment enriched by congenial friendships. Active members are the wives of members of the American Medical Association or the widows of deceased members. Associate members are members of constitutent auxiliaries who do not qualify as active members. Guided in all activities by medical advisors, the Auxiliary assists the A.M.A. in its program for the advancement of medicine and public health and also promotes mutual understanding among physicians' families.

There are no more satisfying, challenging and stimulating avenues for the energies of a doctor's wife than to serve her husband and his profession as a trained, active auxiliary member. Regardless of the geographic aspects of your county, remember we can't have *AUXILIARY* without "U" in it —and without the support, encouragement and help of you our beloved doctors, our national slogan "Health Is a Joint Endeavor" can not become a reality.

SYMPOSIUM ON MODERN TRENDS IN THERAPY

An outstanding biannual 1-day symposium will be held Sunday, October 13, at the Chase Hotel in St. Louis by the St. Louis Academy of General Practice and Lederle Laboratories acting as co-sponsors. The meeting wil be monitored by the medical schools of St. Louis and Washington universities. All doctors and their wives are invited to attend by the Academy.

Speakers of national and international renown who have been selected by the Education Committee of the St. Louis Academy will present seven lectures. The subjects: Chronology of Pediatric Immunization, Present Day Problem of Rickets, Use of Steroids in Rheumatoid Arthritis, Gastrointestinal Diseases of the Aged, Management of Anorectal Disease, Modern Treatment of Common Skin Diseases, and Diagnosis of the Upper Abdominal Complaint.

Social activities will include a luncheon for the doctors and their wives during the noon recess. Robert L. Burnes, sports editor of the St. Louis *Globe-Democrat* will be the luncheon speaker.

For the ladies there will be a morning coffee hour, with cards and a tea in the afternoon. The symposium will close with a cocktail and refreshment hour.

There will be no registration fee or fee of any kind for those attending this unusual postgraduate session.

Members of the American Academy of General Practice may obtain five hours of Category I Credit for attendance at this symposium. The compact comprehensively planned program, together with its social aspects, makes this a definite departure from the ordinary lecture session.

ESSAY CONTEST FOR STUDENTS

The American College of Chest Physicians is offering three cash awards in its 1958 prize essay contest. First prize will be $500; second, $300 and third, $200. The contest, which closes next April 15, is open to undergraduate medical students throughout the world. Essays may be written on any phase of the diagnosis and treatment of chest diseases (heart and/or lungs). For application and further information write: American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Ill.

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Missouri State Medical Secretaries and Assistants Society

MRS. MARGARET SCOTT, *President*

Some seven years ago an enthusiastic group of medical assistants and their advisors met in Kansas City and founded the Missouri State Medical Secretaries and Assistants Society. The society was organized for the purposes of establishing higher standards of efficiency among women employed as medical secretaries and assistants; to promote educational programs adapted to the work of the members; to stimulate a feeling of fellowship between the members of the Society and the Medical Society and to strive earnestly and consistently to further medical public relations programs.

Over the years membership has made a rather slow, but steady, growth. The members have found a delightful comradeship, and they have found it extremely worthwhile to discuss the problems and methods of meeting the problems that arise in the business and semitechnical sides of their offices. The exchange of ideas and the methods of meeting the day-to-day crises have been invaluable. During the life of this Society many doctors have given freely and generously of their time and talents to speak at meetings. These talks have been informative, educational, thought provoking and sincerely appreciated.

As with any organization, it became necessary to revise the by-laws to serve the growing membership and the expanding activities of the Society. Probably the most important revision was the change calling for just one meeting a year, rather than four as in the past. It is hoped that this revision will promote an increase in membership and an increase in attendance at the annual meeting.

Another revision, which it is felt should be called to the attention of the physicians of the state, is that the Society can never be used as a bargaining agent for its members.

At the meeting of the Society in July its educational committee was authorized to prepare a rather ambitious program not only for members of the Society, but for all women in the state who are employed under the direct supervision of a member of the Missouri State Medical Association.

This educational program, according to present plans, encompasses two workshops of the 1-day variety. One probably will be in St. Louis and the other in Kansas City. The program also proposes educational newsletters to be mailed to both members and nonmembers throughout the State. In due time the information should reach every doctor, hospital and clinic in Missouri. It is the hope of the Society that the doctors will see to it that members of their office staffs take advantage of the programs offered.

The Society feels it important to call attention to the American Association of Medical Assistants. The national organization is celebrating its first birthday and will hold its first annual convention the early part of October. The objectives of the national organization are very much the same as those of the state societies, but of a wider scope. Membership in A.A.M.A. is contingent on membership in a state organization.

The Missouri State Medical Secretaries and Assistants Society is anxious to serve its members in any way possible. The Society wholeheartedly offers its cooperation to the Missouri State Medical Association and the Woman's Auxiliary, since it feels in doing so the Society can better serve the doctors for whom the members work and the patients whom the doctors serve. The Society can, by this means, best live up to the challenge given by its founders, "Giving and Doing for Others."

SYMPOSIUM ON NUTRITION

A symposium on "Nutrition in Pregnancy" will be held at the University of Missouri Medical Center, Columbia, on October 11, sponsored by the Council on Foods and Nutrition, American Medical Association and cosponsored by the University of Missouri Medical School, University of Missouri Adult Education and Extension Service and the Boone County Medical Society. The program follows:

Moderator: Robert L. Jackson, M.D., Professor and Chairman, Department of Pediatrics, University of Missouri Medical Center
Registration: 8:00 a.m.

Influence of Maternal Nutritional Level on the Fetus and Infant—Dr. Ray Hepner, Associate Professor of Pediatrics, University of Missouri Medical Center

Metabolic and Biochemical Changes in Normal Pregnancy—Dr. Icie Macy Hoobler, Detroit, Michigan

Importance of Nutritional State of Mother Prior to Conception—Dr. Genevieve Stearns, Research Professor of Orthopedics, State University of Iowa

Production of Congential Malformations by Maternal Dietary Deficiencies, Experiments and Interpretations—Dr. Josef Warkany, Professor of Pediatrics, University of Cincinnati

Discussion: Dr. Albert G. Hogan, University of Missouri

Effect of the Reproductive Cycle on Nutritional Status and Requirements—Dr. William J. McGanity, Vanderbilt University

Dietary Habits During Pregnancy—Miss Dorothy Vorhies, Associate Professor of Dietetics, University of Missouri Medical Center

PANEL DISCUSSION

Review of Epidemiologic Studies

Moderator: Dr. Icie Macy Hoobler
Participants: Dr. Wm. J. Darby, Vanderbilt Univercity, Miss Marjorie Heseltine, Children's Bureau, U. S. Dept. Health, Education, and Welfare and Drs. Hepner, Stearns, and McGanity

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 54 October, 1957 Number 10

Hodgkin's Disease:

Neurologic Sequelae

HENRY D. DIAMOND, M.D., *New York*

There are few satiating experiences in medicine as gratifying as the dramatic rehabilitation of a maimed or crippled person. Especially distressing to the physician is the individual who is paralyzed, suffering severe pain or mental aberrations, relatively young in age, and incapable of managing his or her own toilet hygiene. Such, only too frequently, is the clinical setting of the patient with known Hodgkin's disease, complicated by neurologic involvement and symptomatology.

Goaded by the clinical impressions of good results in the treatment of patients with Hodgkin's disease with nervous system involvement, it was decided to analyze critically a total experience over many years in a clinic and hospital wherein large numbers of patients with Hodgkin's disease were observed. This communication shall record this study.

SOURCES OF PATIENTS

All the patient records on file at the Memorial Center for Cancer and Allied Diseases having a pathologically verified diagnosis of Hodgkin's disease were reviewed. At the present writing, the case load is being engendered further by the collection and study of all patients with pathologically proved Hodgkin's disease in the private practice files of Dr. Lloyd F. Craver and myself. Thus, exclusive of the latter patients, 1,583 patients' records with pathologic verification of Hodgkin's disease became available for this study. Of this group, 205 patients (12.9 per cent) had significant neurologic complications (figure 1). These were found to comprise six categories of nervous system manifestations: (1) herpes zoster; (2) spinal cord compression; (3) peripheral nerve palsies; (4) cerebral syndromes; (5) cranial nerve palsies; and (6) central nervous system infections, in chronologic order of frequency.

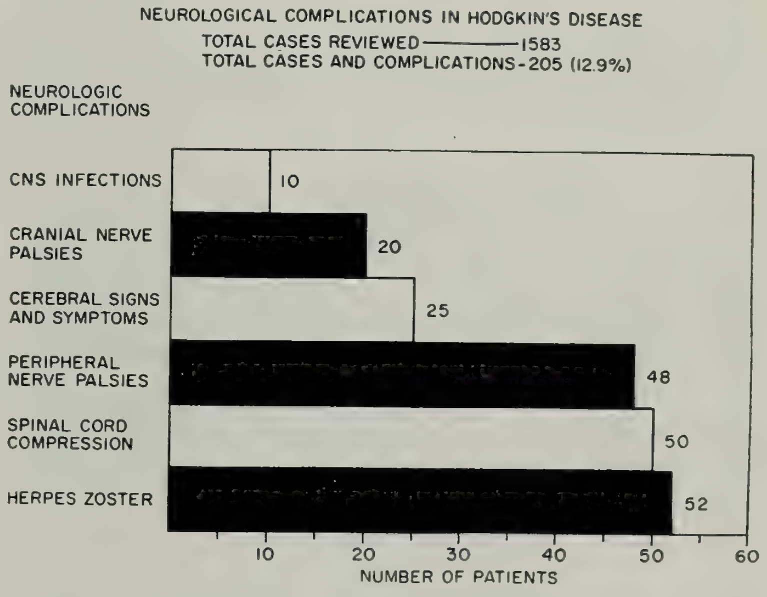

Fig. 1. Neurologic complications in Hodgkin's disease. Total cases reviewed, 1,583; total cases with complications, 205, or 12.9 per cent.

By virtue of the space limitations that must be enforced in the publication of this paper, and since the study is being reinforced and augmented substantially by its continuation at the present writing by studying all the patients in the private practice files of Dr. Lloyd F. Craver and myself, only a précis of the study will be outlined. The detailed analysis will be forthcoming in a later publication.[1]

SEX AND PATHOLOGIC DISTRIBUTION

Of the total of 205 patients with neurologic com-

Part of this paper was delivered at the meeting of February 1957 of the New York Cancer Society at the New York Academy of Medicine, New York, N. Y.

From the Medical Neoplasia Service of the Department of Medicine, The Memorial Center for Cancer and Allied Diseases, New York, N. Y.

Associate Attending Physician, Memorial Center for Cancer and Allied Diseases, New York, N. Y. Associate Clinician, The Sloan-Kettering Institute for Cancer Research, New York, N. Y. Assistant Professor of Clinical Medicine, Cornell University Medical College, New York, N. Y.

Presented at the 99th Annual Session, Missouri State Medical Association, March 31-April 3, 1957, Kansas City.

The author wishes to express that this is a joint study made with Henry Williams, M.D., and Lloyd F. Craver, M.D., of the Medical Neoplasia Service of the Memorial Center for Cancer and Allied Diseases, New York, N. Y.

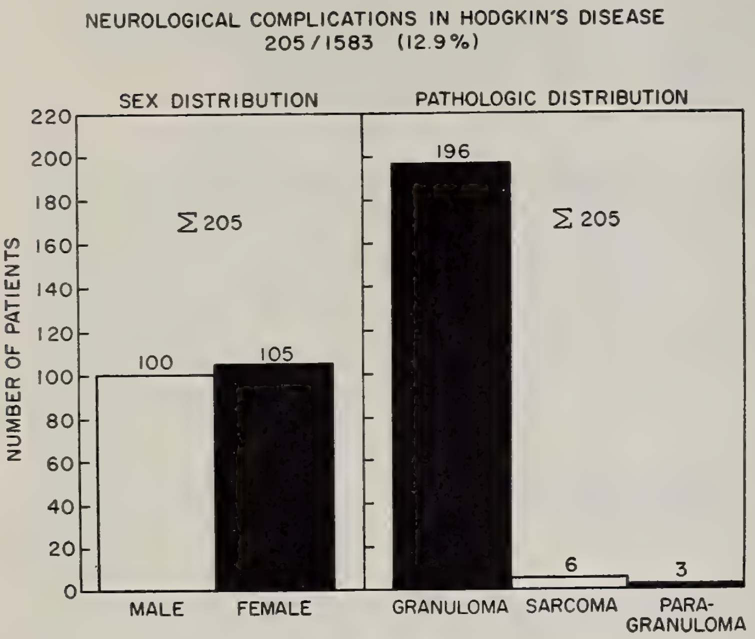

Fig. 2. Neurologic complications in Hodgkin's disease, 205 cases in 1,583 reviewed, or 12.9 per cent.

plications, 100 were males and 105 were females. Of the patients 196 had Hodgkin's granuloma, six Hodgkin's sarcoma, and three Hodgkin's paragranuloma (figure 2).

A. Herpes Zoster

The most common neurologic complication was herpes zoster. During the natural course of their Hodgkin's disease fifty-two patients developed this lesion. Thus the over-all incidence of herpes zoster (52 of 1,583 patients) was 3.2 per cent. Twenty patients were males, and thirty-two were females. Fifty patients had Hodgkin's granuloma, one Hodgkin's paragranuloma, and one Hodgkin's sarcoma (table 1).

TABLE 1

HERPES ZOSTER COMPLICATING HODGKIN'S DISEASE

1. Total cases Hodgkin's disease reviewed	1,583
Total cases Hodgkin's disease and herpes zoster	52
Per cent incidence	3.2
2. Sex distribution	
Male	20
Female	32
3. Initial pathologic diagnosis	
Paragranuloma	1
Granuloma	50
Sarcoma	1

The diagnosis of herpes zoster is seldom a problem. Almost every physician has seen patients with shingles. The development of moderate to severe lancinating, burning or pruritic pain immediately followed or preceded by an erythematous reaction on the skin soon evolving into papules and then vesicles along the cutaneous distribution of a peripheral or cranial nerve is classical and need not be elaborated on here.

Other than ophthalmic herpes zoster, the lesions were distributed at various sites of the body integument. There were three instances of trigeminal nerve distribution zoster; four of cervical integumentary involvement; twenty-nine of cervicodorsal distribution; eight of dorso-lumbar location; five over the lumbosacral integument, and three were not detailed enough in the charts for precise localization (table 2).

TABLE 2

HERPES ZOSTER

Location of Herpes Zoster	*Number of Cases*	*Per Cent*
Trigeminal	3	6
Cervical	4	7
Cervicodorsal	29	55
Dorsolumbar	8	16
Lumbosacral	5	10
Unknown	3	6

Thirty-five patients (67 per cent) who had herpes zoster also had clinical evidence of active Hodgkin's disease at the same body level as the zosteriform lesions at the time herpes zoster supervened. Fifteen patients (29 per cent) had no clinical evidence of Hodgkin's disease at the same body level as the herpetic lesions at the time of onset of shingles. In two patients this data was not available in the charts for precise analysis (table 3).

TABLE 3

CLINICAL EVIDENCE OF ACTIVE HD AT SAME BODY LEVEL AS HERPES AT TIME OF ONSET OF HERPES ZOSTER*

Yes	35	67 per cent
No	15	29 per cent
Unknown	2	4 per cent

* Either on the same side as herpes lesions or lying paravertebrally.

Three patients developed this complication before one quarter of the total course of their Hodgkin's disease had elapsed. Ten patients developed herpes zoster by the time half of their total course of Hodgkin's disease had elapsed. Eleven patients had herpes zoster by the time three fourths of the total course of Hodgkin's disease had elapsed. Twenty-six patients developed this sequelum when they were in the fourth quarter of the natural course of their Hodgkin's disease (table 4). In two patients such a correlation was not forthcoming due to the absence of the pertinent data in the records.

TABLE 4

PER CENT COURSE ELAPSED—TIME OF ONSET, HERPES

Per Cent Total Course Elapsed	*Number of Cases*	*Per Cent*
0-25	3	6
26-50	10	20
51-75	11	20
76-100	26	50
Unknown	2	4

Of the fifty-two patients who had herpes zoster complicating their Hodgkin's disease, forty-two had no specific or definitive treatment. Only analgesics, local anesthetic agents and local pain relieving measures were employed. In some of these patients wide-spectrum antibiotics were employed in an attempt to allay or prevent secondary bacterial suppuration beneath the herpetic eschar. Thirty-six of these fifty-two patients had clearance of their zoster lesions; thirty-two rapidly (less than three weeks) four slowly (from three to six weeks). Six patients developed either superimposed bacterial suppuration of the vesicles or eschar or post-herpetic neuralgia.

Seven patients were given radiation therapy to the spine at the same level as the herpetic lesions. Five had clearance of their lesions; three rapidly, and two slowly. Two patients so treated developed complications of bacterial suppuration or post-herpetic neuralgia.

One patient was treated by radiation therapy to the skin actually involved by the shingles and clearance in this patient was rapid. In two patients the pertinent data necessary for critical evaluation were not available in the patients' records (table 5).

TABLE 5

EFFECT OF TREATMENT OF HERPES ZOSTER

Type of Therapy	*Effect of Therapy on Herpes*		*Complications*
	CLEARED RAPIDLY	CLEARED SLOWLY	
No treatment	32	4	6
Radiation to spine at same level as herpes	3	2	2
Radiation to skin	1		
Unknown—2			

B. Spinal Cord Compression

Spinal cord compression syndrome occurred in 50 patients, representing an incidence of 3.15 per cent in 1,583 patients with Hodgkin's disease. Twenty-three patients were males and twenty-seven were females. Forty-nine patients had Hodgkin's granuloma and one had Hodgkin's paragranuloma (table 6).

TABLE 6

SPINAL CORD COMPRESSION, HODGKIN'S DISEASE

1. Total cases reviewed	1,583
Cord compression	50
Per cent incidence	3.15
2. Sex distribution	
Male	23
Female	27
3. Initial pathologic diagnosis	
Granuloma	49
Paragranuloma	1

Twenty patients had weakness in an extremity; nine had paresthesias; six had back pain; six had pain in an extremity; two had disturbance of sphincter function, and the records of seven patients were not sufficiently documented to allow critical analysis of the data (table 7).

TABLE 7

SYMPTOMS

Initial Symptoms	*Number of Cases*	*Per Cent*
Weakness of extremity	20	40
Paresthesias	9	18
Not stated precisely	7	14
Back pain	6	12
Leg pain	6	12
Sphincter disturbance	2	4

Neurologic examinations revealed that levels of compression occurred anywhere from the cervical to the sacral spine. There were four patients whose compression level was cervical; two, cervicodorsal; thirty-one dorsal; one, dorso-lumbar; eleven, lumbar; and one, sacral (table 8).

TABLE 8

LEVEL OF SPINAL CORD LESION

Level	*Number of Cases*	*Per Cent*
Cervical	4	8
Cervicodorsal	2	4
Dorsal	31	62
Dorsolumbar	1	2
Lumbar	11	22
Sacral	1	2

In thirty-eight of the fifty patients (76 per cent) who had spinal cord compression syndrome, there was clinical evidence of active Hodgkin's disease at the same level as the cord compression; i.e., mediastinal lymph nodes or para-aortic lymph nodes. Contrariwise, in the remaining twelve patients (24 per cent) no overt clinical evidence of active Hodgkin's disease at the same level as the cord compression could be ascertained (table 9).

TABLE 9

CLINICAL EVIDENCE OF ACTIVE DISEASE AT SAME LEVEL

	Number of Cases	*Per Cent*
Present	38	76
Absent	12	24

Three patients developed spinal cord compression by the time one-quarter of the total course of the Hodgkin's disease had elapsed; three by the time one-half of their total course of Hodgkin's disease had ensued; seven, by the time three-fourths of their total course of Hodgkin's disease had elapsed; and finally, thirty-one by the time the last quarter of their total course of Hodgkin's disease had elapsed. Five patients were still living and one patient was lost to follow-up (table 10).

Since motor impairment was the most common sign of spinal cord compression, the degree of symptoms of cord compression was analyzed in terms of amount of motor dysfunction; i.e., from one to four plus. One plus represented slight weakness of legs; two plus, moderate weakness; three plus, marked weakness; and four plus, complete paraplegia (table 11).

TABLE 10

TOTAL COURSE ELAPSED AT TIME OF SPINAL CORD SYMPTOMS

Per Cent Total Course Elapsed	*Number of Cases*	*Per Cent*
0-25	3	6
26-50	3	6
51-75	7	14
76-100	31	62
Living	5	10
Unknown	1	2
	50	100

TABLE 11

DEFINITION OF TERMS

Degree of Symptoms: Measured in Motor Impairment

1+	Slight weakness of legs
2+	Moderate weakness of legs
3+	Marked weakness of legs
4+	Complete paraplegia

TABLE 12

DEFINITION OF TERMS

0	No effect
1+	Slight improvement
2+	Slight to moderate improvement but crutches or braces required for ambulation
3+	Moderate to marked improvement. Ambulatory without mechanical aids but minor neurologic residuae present
4+	Complete neurologic recovery

Treatment was measured in degrees of failure or success from zero representing failure or no effect to four plus meaning complete neurologic recovery (table 12).

Treatment was rendered either surgically, by ionizing radiations (x-ray), or by chemical agents. Surgical therapy was laminectomy, biopsy and decompression by gross tumor removal whenever feasible. X-ray therapy was given by high voltage generators (250 Kv) at 70 cm. target skin distance with 1.5 mm. copper filtration, through vertebral-strip portals either single or multiple depending upon the field sizes, plotted in such fashion that at all times the portals began at least two segments (vertebrae) above the neurologic localization of the compression and two segments (vertebrae) below the neurologic site of cord compression. Chemotherapy was given with nitrogen mustard, methyl-bis-betachlorethyl amine hydrochloride (HN2).* Frequently combination therapy was rendered; either laminectomy and radiation therapy, chemotherapy and radiotherapy or laminectomy, chemotherapy and x-ray therapy.

TABLE 13

TYPE OF THERAPY VS. OUTCOME

Type of Treatment	*Result of Treatment* 0-2+	3-4+
Radiation alone	16 (50%)	16 (50%)
Radiation and HN2	1 (10%)	9 (90%)
Laminectomy and radiation	1	2
Laminectomy and radiation and HN2	1	2
No treatment	2	

Of the six patients subjected to laminectomy, five were found to have epidural Hodgkin's disease compressing the spinal cord.

Thirty-two patients received x-ray therapy only; ten HN2 and radiation therapy; three, laminectomy and x-ray therapy; three, laminectomy HN2 and radiation therapy; and two, no treatment (table 13).

In only seven of the patients was roentgen study of the bony spine not performed. Fourteen patients who had such studies showed x-ray evidence of vertebral involvement with Hodgkin's disease without compression fracture; three had x-ray evidence of vertebral Hodgkin's disease with compression fracture, possibly accounting for the cord compression; and twenty-six had normal vertebral bones on x-ray examination (table 14).

TABLE 14

ROENTGEN STUDIES OF THE SPINE

X-ray and Clinical Data	*Number of Cases*	*Per Cent*
X-ray evidence of spine involvement but no compression fracture	14	28
X-ray evidence of spine involvement with compression fracture possibly accounting for compression	3	6
Negative spine films	26	52
Spine films not done	7	14

TABLE 15

MYELOGRAPHY

Not performed	45
Positive	4
Negative	1

Studies of the Spinal Fluid

Determination	*Number*	*Range*	*Mean*
Protein	9	37-404 mg. per cent	177 mg. per cent
Sugar	3	40- 67 mg. per cent	55 mg. per cent
Cells	5	0- 6 cu. mm.	4 cu. mm.
Pressure	4	15- 80 mm. HOH	120 mm. HOH
Manometrics	Block present in 4 cases.		

Only five patients had myelographic examinations, with four showing positive myelograms, and one negative (table 15).

Studies of the cerebrospinal fluid were not done routinely. On the twenty-one patients on whom pretreatment lumbar spinal taps were performed the manometrics, pressures, cell counts, glucose and protein levels were determined.

C. Cerebral Involvement

Of the 1,583 patients reviewed who had Hodgkin's disease, twenty-five had cerebral manifestations (1.6 per cent). Thirteen were males, and twelve were females. Twenty-four patients had Hodgkin's granuloma, and one had Hodgkin's sarcoma (table 16).

Cerebral symptomatology consisted of convulsions, focal signs, aseptic meningitis, pituitary involvement and papilledema. Twelve patients had

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* Mustargen, Merck & Co., Rahway, N. J.

TABLE 16

CEREBRAL INVOLVEMENT IN PATIENTS WITH HODGKIN'S DISEASE

1. Total cases Hodgkin's disease reviewed	1,583
Total cases with cerebral manifestations	25
Per cent incidence	1.6
2. Sex distribution	
Male	13
Female	12
3. Initial pathologic diagnosis	
Granuloma	24
Sarcoma	1

convulsions; eight, focal signs; two, aseptic meningitis; two, pituitary involvement, and one papilledema (table 17).

TABLE 17

PRINCIPAL CEREBRAL MANIFESTATIONS

Type of Symptoms or Sign	*Number of Cases*	*Per Cent*
Convulsions	12	48
Focal signs	8	32
Aseptic meningitis	2	8
Pituitary involvement*	2	8
Papilledema only**	1	4

* No clinical symptoms.
** Superior vena caval syndrome.

D. Cranial Nerve Involvement

Twenty of 1,583 patients with Hodgkin's disease had clinical evidence of cranial nerve dysfunction; an incidence of 1.3 per cent. There were thirteen males in this group, and seven females. Nineteen patients had Hodgkin's granuloma, and one Hodgkin's sarcoma (table 18).

TABLE 18

CRANIAL NERVE INVOLVEMENT IN HODGKIN'S DISEASE

1. Total cases Hodgkin's disease reviewed	1,583
Total cases with cranial nerve involvement	20
Per cent incidence	1.3
2. Sex distribution	
Male	13
Female	7
3. Initial pathologic diagnosis	
Granuloma	19
Sarcoma	1

The patients with cerebral and cranial nerve involvement were treated with either craniotomy, biopsy, decompression and gross tumor removal when feasible technically; by radiation therapy, or by chemotherapy with HN2. Sixteen patients with cranial nerve neuropathy received x-ray therapy below a total dose of 2,000 r in air; four a total dose in excess of 2,000 r in air; two received combination therapy of HN2 and x-ray therapy; one HN2 only; and three received no treatment. A total dose of HN2 of 0.4 mg. per kg. of body weight was given intravenously whenever HN2 was administered.

Forty-two patients who had combined cerebral manifestations, i.e., convulsions, focal cerebral signs or cranial nerve palsies, received either x-ray therapy, HN2, HN2 and x-ray therapy, craniotomy and roentgen therapy, or no specific therapy. Eighteen patients were given less than 2,000 r in air to the skull; six more than 2,000 r in air; one an unknown amount of x-ray treatment; three combined HN2-x-ray therapy; one HN2 only; one craniotomy and x-ray therapy; and twelve had no specific treatment.

The incidence of cranial nerve involvement is outlined in table 19. There were instances of multiple cranial nerve involvement accounting for the total involvement of thirty-four nerves in twenty patients.

TABLE 19

INCIDENCE OF CRANIAL NERVE INVOLVEMENT

Cranial Nerve Involved	*Number of Cases*	*Per Cent*
I*		
II	1	3
III	1	3
IV	0	0
V	9	26
VI	9	26
VII	7	21
VIII	1	3
IX	1	3
X	0	0
XI	1	3
XII	4	12

* Not documented or tested enough for evaluation.

E. Peripheral Nerve Involvement*

There were forty-eight patients who had peripheral nerve involvement (3 per cent). Twenty-seven patients were males and twenty-one were females. Forty-four patients had Hodgkin's granuloma; three, Hodgkin's sarcoma; and one, Hodgkin's paragranuloma (table 20).

TABLE 20

PERIPHERAL NERVE INVOLVEMENT IN PATIENTS WITH HODGKIN'S DISEASE

1. Total cases Hodgkin's disease reviewed	1,583
Total cases with peripheral nerve involvement	48
Per cent incidence	3
2. Sex distribution	
Male	27
Female	21
3. Initial pathologic diagnosis	
Paragranuloma	1
Granuloma	44
Sarcoma	3

Fourteen patients had cervical sympathetic nerve derangement with Horner's syndrome; twelve had brachial plexus involvement; eight had recurrent laryngeal nerve dysfunction with paretic vocal

TABLE 21

PERIPHERAL NERVE INVOLVEMENT

*Peripheral Nerve Involved**	*Number of Cases*	*Per Cent*
Cervical sympathetic (Horner's syndrome)	14	25
Brachial plexus	12	21
Recurrent laryngeal	8	14
Phrenic	7	13
Lumbosacral	6	11
Lumbar	5	9
Thoracic	1	2
Peripheral Neuritis	3	5
Total	56	100

* Some cases had more than one peripheral nerve involved.

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* For arbitrary reasons, recurrent laryngeal nerve is included in "peripheral" category in this paper, though, in fact, it is a branch of a cranial nerve.

TABLE 22

PERIPHERAL NEURITIS IN HODGKIN'S DISEASE

Patient and Year	*Total Duration of Disease*	*Per Cent Course Elapsed at Onset of Neuritis*	*Clinical Symptoms*	*CSF*	*Effect of Treatment*
N 1941	5 years	75	Diminished reflexes, paresthesias, motor weakness	Neg.*	Vitamins and irradiation without result; progressive neuropathy; death
S 1943	9 years	99	Same	Neg.	Vitamin therapy resulted in slight improvement only
W 1946**	6.25 years	92	Same	Not done	Vitamin therapy resulted in noticeable improvement

* Stated only to be negative. Individual data not given.
** This case may be entirely secondary to vitamin deficiency. At autopsy no CNS or peripheral nerve lesions were noted. The other two cases were not autopsied.

cords and hoarseness; six had lumbosacral nerve segmental involvement; five, lumbar nerve segmental involvement; one, thoracic nerve segmental involvement; and three had classical signs of peripheral neuritis. Some patients had involvement of multiple peripheral nerves (table 21). A detailed analysis of the three patients with peripheral neuritis is delineated in table 22.

F. Central Nervous System Infections

Ten patients (0.6 per cent) had central nervous system infections. These infections consisted of meningitis, toxoplasmosis, nocardiosis, tuberculosis, and herpes zoster. Three patients had Torula meningitis due to Cryptococcus neoformans; two had meningitis due to Listeria monocytogenes; one patient had cerebral abscesses due to Toxoplasma gondii; one had cerebral nocardiosis due to Nocardia asteroides; one had a cerebral tuberculous abscess; one had diffuse cerebral involvement with herpes zoster; and one had pneumococcal meningitis (table 23).

TABLE 23

C. N. S. INFECTIONS—HODGKIN'S DISEASE

			CSF				
Patient	*Infection*	*Principal Symptom*	CELLS CU. MM.	PROT. MG.%	SUG. MG.%	*Treatment*	*Result*
A. V.	Torula Meningitis	Bizarre behavior	37 75M, 25P	49	47	None	Spontaneous remission, L.W 1.5 yrs.
R. H.	Torula Meningitis	Headache, fever	20 80M, 20P	71	61	Amphotericin B	Dead in 3 wk.
A. C.	Torula Meningitis	None	173 85M, 15P	131	33	Actadione, nystatin, polymixin B, sulfadiazine	Dead in 2 mo.
M. H.	Listeria Monocytogenes	Headache, fever	95 55M, 45P	45	44	Teracycline, Chloramphenicol	Dead in 1 mo.
E. G.	Listeria Monocytogenes Meningitis	Fever, coma	20 100 RBC	52	99	Aureomycin	Dead in 2 mo.
C. K.	Cerebral Toxoplasmosis (abscesses)	Dizziness, bizarre behavior	12 100M	44	47	Terramycin	Dead in 17 da. (Autopsy diagnosis)
M. S.	Nocardia Asteroides (cerebral)	Drowsiness	0	31	61	Penicillins, Antibiotics, Mycostatin, Novobiocin	Dead in 5 mo.
R. K.	Tuberculous Cerebral Abscess	Rt. hemiparesis, aphasia	0	118	51	Terramycin, Achromycin	Dead in 1.5 mo. (Autopsy diagnosis)
N. C.	CNS Herpes Zoster	Confusion, paresis	103 97M, 3P	129	24	Aureomycin	Dead in 3 mo.
C. W.	Pneumococcal Meningitis	Coma	Innumer. polys.	—	—	Penicillin, Streptomycin	Dead in 1 da.

DIAGNOSIS

A. Herpes Zoster

The diagnostic features of this herpetiform lesion have already been alluded to. It can only be reemphasized that this disease is due to the invasion and activation of herpes zoster virus in the dorsal root ganglia causing pain or its equivalent along the distribution of the affected nerve, and virus-laden vesicles in the skin supplied by the affected nerve. In almost every instance the disease is unilateral, but there may be bilateral involvement and, occasionally, generalized herpes zoster. The latter is of extremely grave prognosis.

In each of our fifty-two patients with Hodgkin's disease complicated by herpes zoster the diagnosis of the zosteriform condition was simple by virtue of the type of pain, the segmental distribution of the pain, the segmental vesicular rash, the natural evolution and deflorescence of the condition. The single patient with central nervous system herpes zoster was more difficult to prove, but proved it was; yet simple to diagnose. An occasional patient had hemorrhagic herpes zoster. Should this occur in a patient with generalized herpes zoster the differentiation from hemorrhagic chicken pox becomes difficult both clinically and on virologic study.

B. Spinal Cord Compression

It is evident from the foregoing data that spinal cord compression can be diagnosed readily from a combination of symptoms and signs. (See text and tables 7, 8, 9.) The clinician must have a thorough understanding of the natural history of Hodgkin's disease and be capable of utilizing and interpreting the neurologic examination and laboratory findings. It is not necessary, in order to confirm further the diagnosis of cord compression, to perform contrast myelography, nor even lumbar spinal tap. The latter maneuver allows the possibility, at times, of actual traumatization of the tumor since almost invariably the tumor is extradural. X-ray studies of the vertebral column, however, should always be performed to elucidate the possible pathogenetic mechanism of the cord compression. It is also germane, should laminectomy be entertained, that the integrity of the laminae as concerns tumor presence or absence be determined, since, if tumor is present, the surgeon will know that he is cutting across and through viable cancer. Considering the classical principles of cancer surgery, this should be avoided if at all possible. Should the vertebral bodies on roentgen study be involved with Hodgkin's disease, the possibility of future compression collapse, either spontaneously or post-laminectomy, exists.

C. Cerebral Manifestations

These patients had symptoms and signs indicative of cerebral disease. The diagnosis of cerebral involvement or dysfunction or both could be recognized easily by virtue of the presence of convulsions, focal cerebral signs, signs of meningitis or cranial nerve palsies. The two patients with pituitary involvement did not display any clinical evidence of such involvement, though it is indeed possible that others may show diabetes insipidus or selective hypopituitarism or pan-hypopituitarism. Papilledema may be observed but must not be confused with extra-central causation (vide infra).

Roentgen studies of the skull and studies of the cerebrospinal fluid should be done when cerebral manifestations become evident. Their importance and the pathogenetic mechanisms causing the abnormalities found will be discussed later.

D. Cranial Nerve Palsies

Again, as in the group of patients with cerebral involvement, the diagnosis of cranial nerve neuropathy cannot be readily diagnosed without a fundamental understanding of the natural evolution and potentialities of affliction of Hodgkin's disease. The clinician must be constantly alerted to this possibility, and ready to use disciplines of neurology to make the diagnosis. Any of the twelve cranial nerves, either singly or in multiples, may be involved in any one patient with Hodgkin's disease. The pathogenesis of these complications will be discussed further on in this paper. Observation of motor and sensory disturbances of the face, eyes, lid structures, mouth, tongue, chewing muscles, uvula, swallowing mechanism or hearing is important. Localization of the lesion as to whether it is central or peripheral, or upper or lower neuron in derivation is singularly significant both from the diagnostic and therapeutic standpoint.

E. Peripheral Nerve Involvement

The diagnosis of Horner's syndrome is evident to any clinician. Involvement or pressure dysfunction of the recurrent laryngeal nerve or superior laryngeal nerve causes paresis of one of the vocal cords with hoarseness resulting. Simple mirror laryngoscopy will show the paretic cord. Phrenic nerve involvement will cause either pain at the level of C3, pleuritic, or neck and upper shoulder pain, paresis of the hemidiaphragm, dyspnea, tachycardia, atelectasis, cough and paradoxical respirations.

Involvement of the brachial or cervicobrachial plexus will be manifest by motor and sensory disturbances in the upper extremity or supraclavicular fossa or pain or tenderness over the lower cervical vertebrae. Roentgen studies of the cervical spine should always be done with a view to the presence or absence of tumor involvement of the laminae, pedicles, spines or bodies, manifest most often by a mixed lytic and blastic lesion.[2] Segmental, girdle pains are the usual manifestation of thoracic, lumbar and lumbosacral nerve involvement. Pains deep in the pelvis or transmitted into the buttocks, hips, thighs or knees may indicate foci of Hodgkin's disease.

F. Central Nervous System Infections

There is no specific syndrome of central nervous system infection due to Hodgkin's disease. Most central nervous system infections cause identical symptoms and signs irrespective of etiology. What must be remembered constantly by the physician is the apparent increased susceptibility of the patient with Hodgkin's disease to various infections. Our patients presented easily definable clinical symptoms and signs of central nervous system infection proved by careful neurologic assessment and laboratory analyses of spinal fluid and skull x-rays. Headache, nuchal rigidity, nausea and vomiting, variations in blood pressure and pulse rates, the types of pulse amplitudes, dementia, gait disturbances and fever were all present to varying degrees. Yet, the underlying etiology was different in several of the ten patients. Some presented emphatic meningitic signs, some cerebral or encephalomyelitic signs.

TREATMENT AND DISCUSSION

A. Herpes Zoster

Pancoast and Pendergrass[3] in 1924 reported the occurrence of herpes zoster in five patients with Hodgkin's disease stating that this association was rare. They also concluded that this complication was due to irritation caused by a mass of glandular enlargement in close proximity to the posterior ganglia. Craver and Haagensen[4] in 1932 found three instances of herpes zoster in seventy-two patients with Hodgkin's disease (4.5 per cent incidence), and felt that this disease was due to the presence of Hodgkin's disease at or near the same level of herpetic involvement. Marcellus[5] in 1939 reported a patient with known Hodgkin's disease who developed herpes zoster along the distribution of the right fifth dorsal nerve and then bloomed into a full-blown varicella. Lisa[6] in 1940 documented a patient with Hodgkin's disease, herpes zoster, and Raynaud's disease. There have been numerous reports of the occurrence of herpes zoster in patients with chronic lymphatic leukemia[4, 7-19] both segmental and generalized.

By definition, herpes zoster is a disease caused by a virus which has been visualized by electron microscopy. The virus lodges in the dorsal root ganglia and can be identified at this site, and isolated from the fluid in the skin vesicles. Microscopically, inclusion bodies are found. This is almost universally true whenever careful search of dorsal root ganglia and vesicle fluid material has been made for the presence of the virus whether or not Hodgkin's disease or any other disease has preexisted! That the presence of Hodgkin's disease at the same anatomic level or juxtapositional segment as the level of origin of the herpes zoster may trigger or activate dormant herpes zoster viral activity may be so, but remains yet to be proved. This association is suggestive at best.

In our fifty-two patients thirty-five had clinical evidence of Hodgkin's disease at the same body level as the herpetic lesion, but this does not negate my original contention. It merely supports the trigger hypothesis. Our figures do show, however, that in the main herpes zoster occurs mostly late in the course of Hodgkin's disease, since 50 per cent or more of the elapsed course of this disease had occurred when the majority of herpes zoster ensued, thirty-seven of fifty-two cases (table 4). This observation seems to have prognostic significance in reference to the patient with Hodgkin's disease. The highest incidence of anatomic level involvement by herpes zoster was in the distribution of cervico-dorsal nerves, 55 per cent (table 2). This may be due to the motivating effect from cervical and mediastinal adenopathy in Hodgkin's disease which are more prevalent than other nodal sites of involvement.

To be noted is the clear fact that no specific therapeutic measures significantly altered the natural course of the herpes zoster (table 5); and that of forty-two patients who received no treatment, thirty-two cleared rapidly, four slowly, and only six had either secondary bacterial invasion of the eschar with suppuration, or post-herpetic neuralgia. Thus, seemingly, the only place for antibiotic therapy would be in the prevention of secondary infection of the skin lesions. From our data, unless there is Hodgkin's disease clinically evident at the same level as the origin of the herpetic lesion, there is no clear-cut evidence that roentgen therapy to the spine has any definitive benefit. It must be granted that only seven patients received such x-ray treatment.

B. Spinal Cord Compression

There are substantial numbers of documentations in the literature of spinal cord compression syndromes by Hodgkin's disease.[20-60] Almost all these reports stress the extradural presence of the Hodgkin's disease over the vertebral bony existence as the etiology of this syndrome. When postmortem examination was performed soon after treatment was administered, occasionally no Hodgkin's disease was found on examination of the spinal cord, vertebrae or spinal spaces. The best explanation for this was set forth by Stewart[45] as due to strangulation of the blood supply of the cord by the previously existing Hodgkin's disease and irreversible cord ischemia and necrosis.

Our data shows a 3.15 per cent incidence of spinal cord compression syndrome, fifty of 1,583 patients with Hodgkin's disease. This figure is in extended agreement with those of Smith and Stenstrom[50] who reported a 3.6 per cent incidence in 305 patients. Our figures, however, stress motor weakness of an extremity as the major symptom and sign of this syndrome (40 per cent) as opposed to back pain as stressed by these same authors. Outstanding in our study was the absence on x-ray studies of the spinal vertebral column of evident bony disease in these patients (52 per cent). Though epidural invasion is stressed in the literature as the predominating pathogenetic mechanism of this syndrome, too little emphasis on the absence of bony vertebral tumor disease in the face of cord compression is made. Engendering this epidural etiologic mechanism in our data is the preponderant evidence (76 per cent) of clinical signs of Hodgkin's disease at the same level as the cord compression (table 8).

The literature almost unanimously propounds that laminectomy should be done on these patients for decompression, but that radiation therapy in most instances should be given postoperatively.[20-60] That these conclusions on the individual observations made on an overall small number of patients are valid cannot be questioned. Yet for a single total extensive experience, our data do not bear out these contentions. Our three therapeutic approaches were laminectomy, radiation therapy, and chemotherapy with HN2. Thirty-two patients were treated with radiation therapy only, with a complete functional return in 50 per cent of the group, and an incomplete salvage in the other 50 per cent (table 13).

A large number, moreover, even in the latter group were ambulatory after x-ray treatment with the help of mechanical aids. Of ten patients treated by HN2 and x-ray therapy, nine had complete functional return, and only one had partial functional return. Of three patients treated by laminectomy and postoperative x-ray therapy, two had complete resolution of paraplegia and one partial resolution. Identical figures held for three patients who had laminectomy, postoperative HN2, and x-ray therapy. The preponderantly good effects of x-ray treatment alone, and even more striking effect of combined HN2 and x-ray therapy even though on only ten patients speak for as good, and perhaps even better, salvage than laminectomy alone certainly, and even laminectomy and postoperative x-ray therapy. The risk of this surgery on debilitated chronically ill patients must be kept in mind, as does the possibility of future collapse of already unroofed vertebrae due to bony Hodgkin's disease and repeat transverse myelitis from this cause. That certainly careful neurologic localization and placement of x-ray portals for therapy are important, and that an optimal dose level of x-rays is significant will be elucidated in another publication.[1]

Also stressing the point of preference for nonsurgical therapy is the substantiating data that in 62 per cent of our patients (thirty-one of fifty patients) spinal cord compression syndrome occurred after 75 per cent of the total course of the Hodgkin's disease had elapsed. Thusly, in the main, the overall survival of the patient with Hodgkin's disease after the onset of cord compression is short, though not as influenced by this complication. This complication seems to occur predominantly late in the course of the disease (table 10).

The greatest incidence of compression occurred at the level of the dorsal cord, i.e., from D1-D12 (62 per cent, thirty-one of fifty patients). Again this is probably associated with the known high incidence of paravertebral and especially mediastinal involvement in Hodgkin's disease.

Table 24 emphasizes emphatically that although the greatest number of patients develop cord compression (44 per cent) within the first five years of their disease, significant numbers may develop it from the sixth through the tenth year (28 per cent), eleventh through the fifteenth year (12 per cent), and even after fifteen years duration of Hodgkin's disease.

TABLE 24

TOTAL DURATION DISEASE IN GROUP

Duration Years	*Number of Cases*	*Per Cent*
0- 5	22	44
6-10	14	28
11-15	6	12
Over 15	2	4
Living*	5	10
Unknown	1	2

* As of December 1956, 17, 8, 7, 5.5 and 3.5 years.

Though this sequelum occurs predominantly late in the course of Hodgkin's disease (vide supra) it is noteworthy that four patients (8 per cent) survived one to two years after onset and treatment, six (12 per cent), two to three years after onset and treatment, two (4 per cent), three to four years after onset and treatment, and two patients are alive at present completely recovered neurologically seven and eight years respectively (table 25).

TABLE 25

SURVIVAL AFTER ONSET

Survival Years	*Number of Cases*	*Per Cent*
1 or less	30	60
1-2	4	8
2-3	6	12
3-4	2	4
Over 4	1	2
Living*	5	10
Unknown	2	4

* 24, 36, 42, 84 and 97 months.

Another important feature brought out in our study is demonstrated in table 26. This is that, seemingly, if this derangement occurs in patients who have already survived five years with Hodgkin's disease, and these patients then receive adequate treatment (x-ray therapy or HN2 and x-ray therapy) excellent results of therapy can be expected; sixteen of twenty-two with total neurologic recovery, six of twenty-two with partial recovery. This point is reemphasized in table 27, and shows that patients surviving more than three years from onset of Hodgkin's disease who then get spinal cord compression and adequate treatment get good results.

Delay in onset of treatment does not seem to play as important a role as other factors (table 28). Yet, one must not be deluded by this finding out of context. The sooner the diagnosis is made and adequate treatment instituted, when other factors considered are stable, the better the outcome of therapy.

As could be expected, the more complete the

TABLE 26

TOTAL DURATION DISEASES VS. OUTCOME

Years	*0 to 2+*	*3 to 4+*
0-5	13	8
Over 5	6	16
Unknown	1	1
Living	1*	4**

* 17 years.
** 3.5, 5.5, 7 and 8 years.

TABLE 27

DURATION DISEASE AT TIME OF SYMPTOM VS. OUTCOME

Years	*0 to 2+*	*3 to 4+*
0-3	10 (53%)	9 (47%)
Over 3	11 (35%)	20 (65%)

TABLE 28

DELAY IN THERAPY VS. OUTCOME

Delay in Days	*Result—Treatment*	
	0 to 2+	3 to 4+
0-15	12 (40%)	18 (60%)
Over 15	6 (38%)	10 (62%)
Unknown	1	1
No treatment	2	

degree of cord compression at the time of onset of treatment, the less the chance existed for total neurologic recovery (table 29). But even so, a reasonable salvage ensued.

TABLE 29

DEGREE OF SYMPTOM VS. OUTCOME

Maximum Degree SPINAL CORD SYMPTOMS	*Result—Treatment*	
	0 to 2+	3 to 4+
1 to 2+	5 (24%)	16 (76%)
3 to 4+	15 (54%)	13 (46%)
Unknown	1	

C. Cranial Nerve Dysfunction

Graber[61] in 1926 referred to a patient with Hodgkin's disease who had paroxysmal tachycardia from pressure on the vagus nerves by mediastinal nodes. Guillermo and Garcia-Sainz[62] in 1955 recorded facial paralyses in two patients with Hodgkin's disease, and vocal cord paresis and dysphonia due to recurrent laryngeal nerve compression or involvement in six patients.

Our data reveal that only the fourth and tenth nerves were spared dysfunction in our patients. The first nerve may have been spared or affected, but since no data on its testing was found, it must be excluded from comment (table 19). The fifth, sixth, seventh and twelfth nerves were the ones predominantly affected (table 19).

Twenty or 1.3 per cent of 1,583 patients with Hodgkin's disease had cranial nerve neuropathies (table 18).

Treatment was administered either by x-rays, HN2, alone or in combination with each other (table 30). Table 30 reveals also that when x-ray therapy is given, the crucial factor is the total dose. A dose in excess of 2,000 r in air seemingly gave better results than a dose less than 2,000 r in air. Whether HN2 alone or in combination therapy (HN2 plus x-rays), is more or less effective than x-ray therapy alone cannot be concluded because of the small clinical sample. What seems salient is that nothing can be expected but failure when no treatment is given (table 30).

TABLE 30

RESULTS OF THERAPY FOR CRANIAL NERVE INVOLVEMENT IN HODGKIN'S DISEASE

Type of Therapy	*No Effect to Slight Improvement*	*Marked to Complete Recovery*
Radiation (Less than 2,000 r air)	7	5
Radiation (More than 2,000 r air)	0	4
Radiation and HN2	1	1
HN2 alone	1	
No therapy	3	

D. Peripheral Nerve Neuropathies

A careful search of the literature failed to bring to light any comprehensive report of these sequelae in patients with Hodgkin's disease. Ziegler and Torres[63] make reference to several patients with leukemias and lymphomas with peripheral neuropathy, but no details are given.

Our data revealed a 3 per cent incidence of peripheral nerve affection in patients with Hodgkin's disease, forty-eight of 1,583 patients (table 20).

Some of our patients had multiple peripheral nerve manifestations. The highest incidence was manifest by cervical sympathetic involvement causing Horner's syndrome, and brachial plexus involvement causing motor and sensory dysfunction in the upper extremities. Other peripheral nerves were involved as delineated too in table 21. These afflictions were almost always abated by treatment with x-ray therapy to the local area of involvement by tumor since, almost invariably, pressure from adenopathy caused these symptoms.

The results of vitamin therapy for three patients with classical peripheral neuritis are outlined in table 22.

E. Cerebral Involvement

Murchison in 1870[64] was the first to report a case of involvement of the intracranial dura mater with a lymphoblastoma, probably Hodgkin's disease.

Only three cases of primary Hodgkin's sarcoma of the brain have been reported to date,[79, 80] but many investigators have published on secondary involvement.[64–90] A more detailed analysis and literature review will be published later.[1] The prime mechanism of intracranial involvement is agreed to be through growth via the dura through the foramen magnum and over, around and under the brain causing distinct compression at various cranial anatomic sites. Osseous involvement of the skull with direct extension into the brain occurs also.

Of our 1,583 patients with proved Hodgkin's disease, twenty-five (1.6 per cent) displayed cerebral involvement (table 16). None had primary intracranial Hodgkin's disease. Of interest is the fact that only one of the twenty-five patients had the sarcomatous variety of Hodgkin's disease (table 16).

This syndrome was manifest clinically in various ways, but mostly by convulsions, focal fits, or signs of aseptic meningitis respectively. Though two patients had pituitary involvement at autopsy, diabetes insipidus was not present during life (table 17).

Craniotomy was done on one patient for biopsy and decompression and postoperative x-ray therapy administered. This patient had complete neurologic recovery and is still alive and well, seven years since treatment was given. In all other instances x-ray therapy alone has been given and in some instances in recent years HN2 plus x-ray therapy. In better than 50 per cent of patients so treated, amelioration of the symptoms and signs of cerebral involvement, when in fact due to Hodgkin's disease, was effected. The failure of effect should make the clinician suspicious of underlying central nervous system infection (vide infra). The details of treatment shall be published in a forthcoming paper.[1]

F. Central Nervous System Infections

Patients with Hodgkin's disease have been cited for many years as being more susceptible to infections, sometimes with bizarre organisms. Since 1930 repeated instances of the association of Hodgkin's disease with Torulosis have been recorded in the literature.[91–111] Roughly 8 per cent of all reported cases of Torulosis have been associated with Hodgkin's disease.[109] This infection caused by the yeast, Cryptococcus neoformans, is almost uniformly fatal, being unaffected by any known method of treatment to date, when it causes meningitis.

Our study revealed ten patients with esoteric infections, all but one of whom succumbed from the infection (table 23). Three patients had Torula meningitis; two, meningitis due to Listeria monocytogenes; one, cerebral Toxoplasmosis; one, cerebral Nocardia asteroides abscess; one, tuberculous cerebral abscess; one, central nervous system herpes zoster; and one, pneumococcal meningitis (table 23). The details on these patients will be published later.[1] To our knowledge, our single case of Hodgkin's disease with central nervous system herpes zoster is unique. One patient had a spontaneous remission of his Torula meningitis and is still living without evidence of Torulosis; another unique occurrence!

CONCLUSIONS

A study of the incidence, pathogenesis, diagnosis and treatment of the neurologic sequelae of patients with histologically proved Hodgkin's disease is recorded. The data cited represented a study of 1,583 patients with verified Hodgkin's disease, 205 of whom (12.9 per cent) presented evidence of such complications. The end results of treatment are delineated.

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BIBLIOGRAPHY

1. Williams, H.; Diamond, H. D., and Craver, L. F.: On the Neurological Sequelae of Lymphomas, Leukemias, and Allied Diseases. To be published.

2. Vieta, J. O.; Friedell, H. L., and Craver, L. F.: A survey of Hodgkin's Disease and Lymphosarcoma in Bone, Radiol. **39**:1, 1942.

3. Pancoast, H. K., and Pendergrass, E. P.: The Occurrence of Herpes Zoster in Hodgkin's Disease, Am. J. Med. Sc. **168**: 326 (Sept.) 1924.

4. Craver, L. F., and Haagensen, C. D.: A Note on the Occurrence of Herpes Zoster in Hodgkin's Disease, Lymphosarcoma and the Leukemias, Am. J. Cancer **16**:502 (May) 1932.

5. Marcellus, M. B.: Hodgkin's Disease With Herpes Zoster and Varicella, Northwest Med. **38**:279 (Aug.) 1939.

6. Lisa, J. R.: Neurologic Complications in Hodgkin's Disease, N. Y. State Med. J. **40**:62 (Jan.) 1940.

7. Skeer, J.: Herpes Zoster Generalisatus. Arch. Dermat. & Syphilol. **34**:809 (Nov.) 1936.

8. Ferreira, M. J.: Herpes Zoster Generalisatus in Leukemia, Arch. f. Dermat. u Syphilol. **176**:295, 1937.

9. Barney, R. E.: Zosteriform leukemia cutis, Arch. Dermat. & Syphilol. **37**:238 (Feb.) 1938.

10. Bafverstedt, B.: Generalised Herpes Zoster and Leukemic Lymphadenosis, Acta Dermat.-Venerol. **21**:60 (Feb.) 1940.

11. Wile, V. J., and Holeman, H. H.: Generalised Herpes Zoster Associated With Leukemia, Arch. Dermat. & Syphilol. **42**:587 (Oct.) 1940.

12. Barton, R. L., and O'Leary, P. A.: Herpes Zoster Generalisatus Associated With Chronic Lymphatic Leukemia, Arch. Dermat. & Syphilol. **51**:263 (April) 1945.

13. Catlin, C. H.: Leukaemic Infiltration of the Site of Herpes Zoster, Brit. M. J. **1**:801 (May) 1946.

14. Wilkinson, J. F.: Cutaneous Leukaemic Deposits Supervening on Herpes Zoster in a Case of Chronic Lymphatic Leukaemia, Brit. J. Dermat. **59**:57 (Feb.) 1947.

15. Anderson, D.: Severe Zoster Associated With Leukaemia, M. J. Australia **2**:126 (July) 1948.

16. Gelfand, M. L.: Herpes Zoster With a Varicelliform Eruption and Parotitis in Chronic Leukemia, J.A.M.A. **145**: 560 (Feb.) 1951.

17. Bosworth, E. L.: Generalised Herpes Zoster: Report of a Case Following Roentgen Ray Therapy, Associated With Chronic Lymphatic Leukemia, Leukemia Cutis and Mickulicz's Syndrome, Arch. Dermat. & Syphilol. **63**:772 (June) 1951.

18. Frank, L.: Generalised Herpes Zoster, Eencephalitis and Lymphatic Leukemia, Arch. Dermat. & Syphilol. **64**:192 (Aug.) 1951.

19. Rodman, G. P., and Rake, B. W.: Disseminated Herpes Zoster Complicating Chronic Lymphatic Leukemia, N. Engl. J. Med. **254**:472 (March) 1956.

20. Weber, F. P.: Paraplegia and Cauda Equina Symptoms in Lymphogranulomatosis Maligna (Hodgkin's Disease), Quart. J. Med. **17**:1 (Oct.) 1923.

21. Allen, A. A., and Blacklock, J. W. S.: Case of Hodgkin's Disease With Paraplegia, Glasgow M. J. **103**:115 (Feb.) 1925.

22. Weber, F. P.: Paraplegia in Lymphogranulomatosis Maligna and Leukemia, and the Question of Their Being a Hodgkin's Sarcoma as Well as a Hodgkin's Granuloma. Internat. Clin. **1**:126 (March) 1926.

23. Ginsburg, S.: Hodgkin's Disease With Predominant Localization in the Nervous System; Early Diagnosis and Radiotherapy, Arch. Int. Med. **39**:571 (April) 1927.

24. Weber, F. P., and Bode, O.: Case of Abdominal Lymphogranulomatosis Maligna (Hodgkin's Disease), Lancet **213**:806 (Oct. 15) 1927.

25. East, C. F. T., and Lightwood, R. C.: Compression Paraplegia in Lymphadenoma, Lancet **213**:807 (Oct. 15) 1927.

26. Forrest, D.: A Case of Transient Paraplegia in Hodgkin's Disease, Lancet **213**:809 (Oct. 15) 1927.

27. Carslaw, J., and Young, J. S.: Case of Hodgkin's Disease With Paraplegia and Other Somewhat Rare Complications, Glasgow M. J. **108**:193 (Oct.) 1927.

28. Blakeslee, G. A.: Compression of the Spinal Cord in Hodgkin's Disease, Arch. Neurol. & Psychiat. **20**:130 (July) 1928.

29. Robinson, G. A.: Hodgkin's Disease Thirteen Years After Treatment With Roentgen Ray and Radium, J.A.M.A. **91**:1548 (Nov.) 1928.

30. Weil, A., and Davison, C.: Changes in the Spinal Cord in Anemia, Arch. Neurol. & Psychiat. **22**:966 (Nov.) 1929.

31. Shapiro, P. F.: Changes in the Spinal Cord in Hodgkin's Disease, Arch. Neurol. & Psychiat. **24**:509 (Sept.) 1930.

32. Poynton, F. J., and Harris, K. E.: A Case of Paraplegia in Hodgkin's Disease, Lancet **219**:902 (Oct. 25) 1930.

33. Paullin, J. E.; Futcher, T. B., and MacCallum, W. G.: Central Nervous System Manifestations of Lymphoblastoma, J.A.M.A. **96**:2150 (June) 1931.

34. Johnston, J. M.: Hodgkin's Disease With Invasion of Spinal Column; Pressure on Cauda Equina; and Degeneration of Posterior Columns of the Cord, Penn. M. J. **34**:877 (Sept.) 1931.

35. Weil, A.: Spinal Cord Changes in Lymphogranulomatosis, Arch. Neurol. & Psychiat. **26**:1009, 1931.

36. Hare, D. C.; Lepper, E. H., and Weber, F. P.: Two Cases of Lymphogranulomatosis Maligna, Lancet **222**:334 (Feb.) 1932.

37. Lamb, F. H.: Lymphomatous Compression of the Spinal Cord, Am. J. Clin. Path. **3**:155 (March) 1933.

38. Sarma, P. J.: Lymphogranuloma of the Epidural Space, Internat. Clin. **2**:181 (June) 1933.

39. Viets, H. R., and Humber, F. T.: Lymphoblastomatous Involvement of the Nervous System, Arch. Neurol. & Psychiat. **29**:1246 (June) 1933.

40. Cooper, M. J.: Lymphogranulomatosis Maligna (Hodgkin's Disease) With Invasion of the Spinal Canal and Paraplegia, J.A.M.A. **102**:917 (March 24) 1934.

41. Wheatley, L. F.: Lymphoblastoma With Paraplegia and Prolonged Irradiation, J.A.M.A. **104**:460 (Feb. 9) 1935.

42. Rosh, R.: Vertebral Involvement in Hodgkin's Disease, Radiol. **26**:454 (April) 1936.

43. Allen, I. M., and Mercer, J. O.: Spinal Symptoms With Lymphadenoma, J. Neurol. & Psychopath. **17**:1 (July) 1936.

44. von Hagen, K. O.: Lymphogranuloma (Hodgkin's Disease) With Involvement of the Spinal Cord, Bull. Los Angeles Neurol. Soc. **2**:20 (March) 1937.

45. Stewart, H. H.: Hodgkin's Disease With Spinal Cord Involvement, Ulster M. J. **7**:68 (Jan.) 1938.

46. Case Records of the Massachusetts General Hospital (case 24322), N. Engl. J. Med. **219**:207 (Aug. 11) 1938.

47. Keschner, M.: A Case of Hodgkin's Disease With Compression of the Spinal Cord, Following Trauma to the Back, J. Mt. Sinai Hosp. **5**:301 (Nov.-Dec.) 1938.

48. Browder, J., and deVeer, J. A.: Lymphomatoid Diseases Involving the Spinal Epidural Space, Arch. Neurol. & Psychiat. **41**:328 (Feb.) 1939.

49. Batts, M., Jr.: Multiple Myeloma: Review of Forty Cases, Arch. Surg. **39**:807 (Nov.) 1939.

50. Goldman, L. B.: Hodgkin's Disease: an Analysis of 212 Cases, J.A.M.A. **114**:1611 (April) 1940.

51. Gray, R. C.; Baker, A. B.; Cottrell, L., and Skogland, J. E.: Hodgkin's Disease of the Central Nervous System, Internat. Clin. **4**:230 (Dec.) 1941.

52. Baker, G. S.: Lymphoblastoma of the Spinal Cord Simulating Other Organic Diseases: Report of Two Cases, Proc. Staff Meet. Mayo Clin. **17**:588 (Dec.) 1942.

53. Verda, D. J.: Malignant Lymphomas of the Spinal Epidural Space, Surg. Clin. N. Am. 1228 (Oct.) 1944.

54. Jackson, H., Jr., and Parker, F., Jr.: Hodgkin's Disease V.; Involvement of Certain Other Organs, N. Engl. J. Med. **233**:369 (Sept.) 1945.

55. Shenkin, H. A.; Horn, R. C., and Grant, F. C.: Lesions of the Spinal Epidural Space Producing Cord Compression, Arch. Surg. **51**:125 (Oct.) 1945.

56. Smith, M. J., and Stenstrom, K. W.: Compression of the Spinal Cord Caused by Hodgkin's Disease, Radiol. **51**:77 (July) 1948.

57. Sparling, H. J.; Adams, R. D., and Parker, F., Jr.: Involvement of the Nervous System by Malignant Lymphoma, Medicine **26**:285 (Sept.) 1947.

58. Beresford, O. D., and McLetchie, N. G. B.: Hodgkin's Disease: an Unusual Case With Spinal Symptoms, Brit. M. J. **2**:136 (July 17) 1948.

59. Lawes, F. A. E., and Ham, H. J.: A Case of Hodgkin's Disease With Spinal Cord Involvement Treated With Nitrogen Mustard, M. J. Australia **1**:104 (Jan.) 1953.

60. Love, J. G.; Miller, R. H., and Kernohan, J. W.: Lymphomas of the Spinal Epidural Space, Arch. Surg. **69**:66 (July) 1954.

61. Graber, V. C.: Paroxysms of Tachycardia Occurring in a Case of Hodgkin's Disease in Which the Vagus Nerves Were Degenerated by the Pressure of Enlarged Mediastinal Glands, Am. Heart. J. **1**:564 (June) 1926.

62. Montano, G., and Garcia Sainz, M.: Estudio Anatomicoclinico de 115 Casos de Enfermedad de Hodgkin, June 1955: Monographias de la Sociedad Medica del Hospital General, pgs. 58 and 59.

63. Ziegler, D. K., and Torres, F.: Peripheral Neuropathy Associated With Neoplasms, Tr. Am. Neurol. Assoc. **80**:229 (June) 1955.

64. Murchison, C.: Case of Lymphadenoma of the Lymphatic System, Liver, Lungs, Heart and Dura Mater, Tr. Path. Soc. London **31**:372, 1869-1870.

65. von Hecker, H., and Fischer, W.: Zur Keuntnis der Lymphogranulomatose, Deutsche Med. **48**:482 (April 14) 520 (April 21) 1922.

66. Bassoe, P.: Tumor-Like Infiltration of Cerebral Dura: a Case of Lymphosarcoma With Clinical Picture of Hodgkin's Disease, Arch. Neurol. & Psychiat. **7**:788 (June) 1922.

67. Fried, B. M.: Sarcomatosis of the Brain, Arch. Neurol. & Psychiat. **15**:205 (Feb.) 1926.

68. Baldridge, C. W., and Awe, C. D.: Lymphoma: a Study of One Hundred and Fifty Cases, Arch. Int. Med. **45**:161 (Feb.) 1930.

69. Paullin, J. E.: Central Nervous System Manifestations of Lymphogranuloma, Tr. A. Am. Physicians **46**:252, 1931.

70. Conybeare, E. T.: Some Features of Hodgkin's Disease, Guy's Hosp. Rep. **83**:53, 1933.

71. Serebrjanik, B.: Lymphogranulomatose Meningo-Encephalitis und Polyradiculitis, Deutsche Ztschr. f. Nervenh **129**:103, 1933.

72. Viets, H. R., and Hunter, F. T.: Lymphoblastomatous Involvement of the Nervous System, Arch. Neurol. & Psychiat. **29**:1246 (June) 1933.

73. Martin, H. E., and Courville, C. B.: Hodgkin's Disease With Involvement of the Cranial Dura Mater, Bull. Los Angeles Neurol. Soc. **1**:145 (Dec.) 1936.

74. Schope, M.: Zur Frage "Blastom"—"Encephalitis," Arch. f. Psychiat. **109**:755, 1939.

75. Rae, A. S. L.: A Case of Hodgkin's Disease With Cutaneous and Cerebral Manifestations, Edinburgh M. J. **46**:400 (June) 1939.

76. Winkelman, N. W., and Moore, M. T.: Lymphogranulomatosis (Hodgkin's Disease) of the Nervous System, Arch. Neurol. & Psychiat. **45**:304 (Feb.) 1941.

77. Brandt, S.: Alterations Leucemiques du Systeme Nerveux, Acta Psychiat. & Neurol. **20**:107 & 127, 1945.

78. Bateman, O. J.; Squires, G., and Thannhauser, S. J.: Hodgkin's Disease Associated With Schilder's Disease, Ann. Int. Med. **22**:426 (March) 1945.

79. Sparling, H. J., and Adams, R. D.: Primary Hodgkin's Sarcoma of the Brain, Arch. Path. **42**:338 (Sept.) 1946.

80. French, J. D.: Plasmocytoma of the Hypothalamus, J. Neuropath. & Exper. Neurol. **6**:265 (July) 1947.

81. Kohut, H.: Unusual Involvement of the Nervous System in Generalised Lymphoblastoma, J. Nerv. & Ment. Dis. **103**:9 (Jan.) 1946.

82. Jackson, H., Jr., and Parker, F., Jr.: Hodgkin's Disease & Allied Disorders, New York, Oxford University Press, 1947.

83. King, D. P., and Richardson, J. S.: Hodgkin's Disease of the Cerebellum, St. Thomas's Hosp. Rep. **6**:273, 1950.

84. Adams, R. D.; Denny-Brown, D., and Foley, J. M.: Clinical Pathological Conference, Neurol. **3**:615 (Aug.) 1953.

85. Lesse, S., and Netsky, M. G.: Metastasis of Neoplasms to the Central Nervous System and Meninges, Arch. Neurol. & Psychiat. **72**:133 (Aug.) 1954.

86. Fein, S. B., and Newill, V. A.: Cerebral Hodgkin's Disease, Am. J. Med. **17**:291 (Aug.) 1954.

87. Schricker, J. L., and Smith, D. E.: Primary Intracerebral Hodgkin's Disease, Cancer **8**:629 (May-June) 1955.

88. John, H. T., and Nabarro, J. D. N.: Intracranial Manifestations of Malignant Lymphoma, Brit. J. Cancer **9**:386 (Sept.) 1955.

89. Sokal, J. E., and Glaser, G. H.: An Unusual Neurologic Syndrome in Hodgkin's Disease, Ann. Int. Med. **44**:1250 (June) 1956.

90. Whisnant, J. P.; Sickert, R. G., and Sayre, G. P.: Neurologic Manifestations of the Lymphomas, Med. Clin. N. Am. **41**:1151 (July) 1956.

91. Smith, F. B., and Crawford, J. S.: Fatal Granulomatosis of the Central Nervous System Due to a Yeast (Torula), J. Path. & Bact. **33**:291, 1930.

92. Fitchett, M. S., and Weidman, F. D.: Generalised Torulosis Associated With Hodgkin's Disease, Arch. Path. **18**:225 (Aug.) 1934.

93. Wile, V. J.: Cutaneous Torulosis, Arch. Dermat. & Syphilol. **31**:58 (Jan.) 1935.

94. Magruder, R. G.: A Report of Three Cases of Torula Infection of the Central Nervous System, J. Lab. & Clin. Med. **24**:495 (Feb.) 1939.

95. Owen, M.: Generalised Cryptococcosis Simulating Hodgkin's Disease. Texas M. J. **35**:767 (March) 1940.

96. Warvi, W. M., and Rawson, R. W.: Torula Meningitis, Arch. Int. Med. **69**:90 (Jan.) 1942.

97. Burger, R. E., and Morton, C. B.: Torula Infection, Surgery **15**:312 (Feb.) 1944.

98. Tinney, W. S., and Schmidt, H. W.: Torula Infection, Med. Clin. N. Am. **28**:950 (July) 1944.

99. Cox, L. B., and Tollhurst, J. C.: Human Torulosis, Melbourne University Press, 1946.

100. Torrey, F. A.: Cutaneous Torulosis in a Patient With Hodgkin's Disease, Arch. Dermat. & Syphilol. **55**:738 (May) 1947.

101. Gendel, B. R.; Ende, M., and Norman, S. L.: Cryptococcosis: a Review With Special Reference to Apparent Association With Hodgkin's Disease, Am. J. Med. **9**:343 (Sept.) 1950.

102. Parrillo, O. J.: Disseminated Mycotic Disease, J.A.M.A. **144**:747 (Oct.) 1950.

103. Rodger, R. C.; Terry, L. L., and Burford, C. H.: Histoplasmosis, Cryptococcosis and Tuberculosis Complicating Hodgkin's Disease, Am. J. Clin. Path. **21**:153 (Feb.) 1951.

104. Collins, V. P.; Gellhorn, A., and Trimble, J. R.: The Coincidence of Cryptococcosis and Disease of the Reticulo-endothelial and Lymphatic Systems, Cancer **4**:883 (July) 1951.

105. Holmes, S. J., and Hawks, G. H.: Torulosis of the Central Nervous System, Canada M. A. J. **68**:143 (Feb.) 1953.

106. Symmers, W. S. C.: Torulosis: a Case Mimicking Hodgkin's Disease and Rodent Ulcer and a Presumed Case of Pulmonary Torulosis With Acute Dissemination, Lancet **265**:1068 (Nov.) 1953.

107. Zimmerman, L. E., and Rappaport, H.: Occurrence of Cryptococcosis in Patients With Malignant Disease of the Reticuloendothelial System, Am. J. Clin. Path. **24**:1050 (Sept.) 1954.

108. Misch, K. A.: Torulosis Associated With Hodgkin's Disease, J. Clin. Path. **8**:207 (Aug.) 1955.

109. Zelman, S.; O'Neil, R. H., and Plant, A.: Disseminated Visceral Torulosis Without Nervous System Involvement, Am. J. Med. **11**:658 (Nov.) 1951.

110. Levene, M., and Michaels, L.: Acute Disseminated Torulosis Associated With Hodgkin's Disease, J. Clin. Path. **8**:201 (Aug.) 1955.

111. Goodman, H. L.: Cryptococcosis Associated With Hodgkin's Disease, N. Y. J. Med. **56**:1493 (May) 1956.

Urethritis

Attributable to Hexyclaine (Cyclaine) Gel as a Topical Anesthetic Agent

Report of Four Cases

HERBERT L. WARRES, M.D., *St. Joseph*

Hexylcaine (cyclaine), one of the newer local anesthetic agents, has proven suitable for infiltration, spinal,[1] topical[3,6] and nerve block anesthesia.[2,4,5,9] The hydrochloride is freely soluble in water and is stable on boiling and autoclaving. The solution is clear and does not discolor after long periods of shelf life. Its toxicity is comparable to procaine and metycaine; topical activity similar to cocaine and butacaine, and duration equivalent to tetracaine.[12]

Used on the pharynx and larynx, a 1 per cent solution proved inadequate; 2.5 per cent gave anesthesia in most patients for fifteen minutes while 5 per cent anesthetized all for thirty-two minutes.[13] Triton A-20 was found to increase hexylcaine's performance topically by lowering surface tension. Methylcellulose increased activity by its viscosity and stickiness. Hyaluronidase produced no potentiation early and resulted in a shorter period of maximal duration.[7] No allergic sensitization was found in 285 patients and no cross sensitization to benzocaine or paraphenylenediamine.[8] Orkin and Rovenstine[11] obtained good anesthesia in 92.5 per cent of patients using hexylcaine hydrochloride solution topically for major endoscopic procedures. Lee et al[10] obtained excellent results in 625 cases using hexylcaine gel. Reactions reported have been negligible.

I wish to report four cases of urethritis attributable to the use of 5 per cent hexylcaine gel as a topical anesthetic agent. Since January 1956 at this clinic local anesthesia in female patients has been produced by using a cotton pledget dipped in 5 per cent hexylcaine hydrochloride solution and then inserted into the urethra for from three to seven minutes. In male patients approximately 10 cc. of a 5 per cent hexylcaine gel has been instilled into the urethra which was retained for five to ten minutes. In a sixteen month period there have been 349 cystocopies in women and 344 in men. In addition, there were approximately 1,055 female and 375 male urethral dilatations. There have been no major or systemic reactions in either sex, and no local reactions in women.

CASE REPORTS

The first reaction occurred in July 1956 when, following an uneventful observation cystoscopy, the male patient returned two weeks later stating that he had had marked swelling of the glans penis and a clear colorless urethral discharge for a week following the procedure. By the time he returned, all signs and symptoms had disappeared. No further investigation was done. Unfortunately, this patient's chart cannot be located at the time of this writing.

The next reaction arose in a 46 year old white male who was cystoscoped on August 13, 1956, because of some urinary hesitancy and urgency of six months duration. Routine urinalysis was normal. The external genitalia revealed a plaque of fibrous cavernositis on the dorsum of the penis. The prostate was normal on rectal examination. Cystoscopy revealed an early median bar. Oxytetracycline was prescribed post-cystoscopically prophylactically. The patient returned ten days later because of edema of the glans penis, a clear urethral discharge and an itching sensation in the urethra. The patient was hospitalized. Urethral smear was negative for organisms. Culture revealed no growth. The discharge did not respond to penicillin, streptomycin, chloramphenicol, novobiocin or nitrofurantoin (Furadantin). Neither was there any improvement on diphenhydramine (Benadryl) or pyrrobutamine compound (Co-pyronil). The patient showed dramatic improvement on cortisone. On October 18, 5 per cent hexylcaine gel was placed on a band-aid and applied to the forearm for forty-eight hours. Tripelennamine (Pyribenzamine) anesthetic jelly was used as a control. A small area of redness appeared beneath the hexylcaine patch and none with the control.

The third case is a 57 year old white male minister who was first seen August 30, 1954, when a search for foci of infection was being made because of senile macular degeneration. Urinalysis then was normal. Prostatic secretions were normal. Cystoscopy revealed an early median bar with four ounces of residual urine. The residual urine disappeared with urethral dilatations. Following a simple dilatation of the urethra on January 10, 1956, the patient reported edema of the glans penis which he attributed to the instillation of a mild silver proteinate solution into the bladder after treatment. Following an uneventful dilatation one year later, the patient had fairly marked edema of the glans penis accompanied by difficulty in urination. The patient specifically attributed this to the local anesthetic agent. A patch test with hexylcaine gel showed an area of redness beneath it and none using tripelennamine anesthetic jelly as a control.

The last case is a 68 year old white male who was cystoscoped February 28, 1957, because of pain in the perineum radiating into the penis of two weeks duration. The prostate was slightly enlarged and boggy. Prostatic secretions showed twenty white blood cells per high power field. Urinalysis was normal. Cystoscopy revealed an early median bar. Sulfamethizole (Thiosulfil) was given prophylactically post-cystoscopically. The patient returned eleven days later stating

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From the Thompson-Brumm-Knepper Clinic, St. Joseph, Missouri.

Cyclaine Hydrochloride Solution and Cyclaine Jelly were supplied through the courtesy of Sharp & Dohme.

that he had had edema of the glans penis and a urethral discharge. Patch test showed redness using hexylcaine gel and none using tripelennamine anesthetic jelly as a control.

COMMENT

It is possible that 5 per cent hexylcaine may be a too concentrated solution for routine use in the urethra. This is unlikely since there have been no reactions in female patients. Probably a constituent in the gel other than the hexylcaine or in combination with it produced an allergic or chemical urethritis in these patients. In only one did the reaction not subside spontaneously. In this case cortisone proved the drug of choice and probably would be similarly applicable in other types of chemical urethritis.

The rapidity of onset of anesthesia and its degree have made hexylcaine our current choice of topical anesthetic agents. The lack of systemic and relatively insignificant degree of local reactions shows this to have been a good one.

CONCLUSIONS

Four cases of edema of the glans penis accompanied by urethral discharge attributable to the use of 5 per cent hexylcaine gel as a topical anesthetic agent are reported. Cortisone or one of its analogues is the drug of choice in treatment of allergic or chemical urethritis.

902 Edmond St.

BIBLIOGRAPHY

1. Anderson, E., and Ruben, J. E.: Clinical Use of Cyclaine (Hexylcaine Hydrochloride) for Spinal and Regional Nerve Block, Anesthesiol. **13**:429-434 (July) 1952.
2. Blundell, A. E.; Bodell, B.; Andorko, J. E.; Sweeney, J. C., and Ansboro, P.: Clinical Evaluation of Drugs Used in Obtaining Lumbar Epidural Anesthesia, Anesthesiol. **16**: 386-393 (May) 1955.
3. Ray, E. S., and Vinson, P. P.: Hexylcaine—A New Topical Anesthetic Agent, Anesthesiol. **14**:315-316 (June) 1953.
4. Orkin, L. R., and Rovenstine, E. A.: Hexylcaine (Cyclaine): Usefulness in Regional and Topical Anesthesia—A Preliminary Report, Anesthesiol. **13**:465-473 (September) 1952.
5. Lee, L. W.; Davis, E., Jr., and Barmore, J.: The Clinical Use of Cyclaine (Hexylcaine) as an Anesthetic Agent in Urological Surgery: A Report of Observations of 1,000 Patients, J. Urol. **72**:261-266 (Aug.) 1954.
6. Jacques, A., and Hudon, F.: A Further Report on the Clinical Uses of Hexylcaine (Cyclaine), Anesth. & Analg. **33**:270-276 (July-Aug.) 1954.
7. Clark, R. E.; Orkin, L. R., and Rovenstine, E. A.: An Objective Method of Evaluating Topical Anesthesia in Man Utilizing the Laryngeal Reflex. The Effect of Methylcellulose, Triton A-20, and Hyaluronidase as Determined Thereby, Anesthesiol. **15**:161-172 (March) 1954.
8. Lubowe, I. I.: Hexylcaine in Management of Pruritic Dermatoses, Arch. Derm. & Syph. **69**:482-485 (April) 1954.
9. Council on Pharmacy and Chemistry. New and Non-Official Remedies. Hexylcaine Hydrochloride, J.A.M.A. **155**: 908-9 (July 3) 1954.
10. Lee, L. W.; Malashock, E. M., and Davis, E., Jr.: Topical Urethral Anesethesia: Cyclaine Gel: Observation in 625 Patients, Tr. S. Cent. Am. Urol. A. 47-49 (Oct. 17-19) 1955.
11. Orkin, L. R., and Rovenstine, E. A.: Topical Anesthesia With Hexylcaine (Cyclaine) for Major Endoscopic Procedures. J.A.M.A. **160**:1465-1467 (Apr. 28) 1956.
12. Crawford, O. B.: Comparative Qualities of Three New Local Anesthetic Drugs: Xylocaine, Cyclaine and Pravocaine, Anesthesiol. **14**:278-290 (May) 1953.
13. Orkin, L. R., and Rovenstine, E. A.: Hexylcaine (Cyclaine): Usefulness in Regional and Topical Anesthesia—Preliminary Report, Anesthesiol. **13**:465-73 (September) 1952.

HOW TO PREPARE THEM FOR AGING

A 72-year-old North Carolina physician spelled out a 7-point program for preparing patients for the problems of growing old.

According to Dr. Wingate M. Johnson, Winston-Salem, in *The Journal* of the American Medical Association, doctors should try to train their middle-aged and even younger patients to cultivate proper habits of eating, sleeping, exercise, recreation, work and mental hygiene.

This article on the relationship of the doctor to his aging patient is the first in a series on various aspects of aging, published under the auspices of the A.M.A. committee on aging.

Dr. Johnson, a member of the committee and a professor at Bowman-Gray School of Medicine, listed seven rules of conduct he devised for himself some years ago. These rules have helped some of his patients and friends grow old with a "reasonable degree of complacency," he said. The rules are:

1. Recognize that the mind should be at its best when a person is about 40 years old and should continue to be efficient to the age of 70 or more. Organic changes in the brain do not necessarily parallel mental changes. The mind which is properly trained does not lose its elasticity, and constant use of the brain helps to keep it efficient.
2. Avoid becoming an "old fogy" by frequent association with young people. Prepare for occasional shocks, but try to understand youth's viewpoint.
3. Learn to delegate authority and to unload responsibility upon younger, more enthusiastic shoulders.
4. Cultivate wide interests. Learn new uses for hands and brain, and exchange more strenuous amusements for others less arduous.
5. Keep in touch with old friends and make new ones to avoid loneliness.
6. Cultivate equanimity—the mental poise that keeps one from being unduly elated or depressed. Keep a proper balance between emotion and reason.
7. Cultivate the habit of looking forward rather than backward.

Dr. Johnson noted that the oldster's attitude may be resentful, resigned or realistic. The doctor can help foster the correct attitude by being sympathetic, sincere, and sensible.

"Many of the most unpleasant traits of adolescence and old age have a common basis—the desire to belong. . . . The adolescent wants to achieve recognition as a useful member of society; the oldester wants to retain that recognition. The doctor can help the older patient's morale by showing a genuine interest in him and his environment," he said.

A doctor needs to be more than just a doctor to an aging patient; he must be "guide, philosopher, and friend," Dr. Johnson concluded.

DR. HESS TOURS AIR FORCE HOSPITALS

Dr. Elmer Hess, former president of the American Medical Association, returned recently from an inspection of the urological services of the Air Force Hospitals in the Middle East and Europe. He was to report later to Maj. Gen. Dan Ogle, Surgeon General of the Air Force. Dr. Hess has been chosen to head the Health Resources Advisory Committee.

Special Article

Implications of Inflation for Medical Economics

LEONARD W. MARTIN, Ph.D., *Chicago, Ill.*

WHENEVER an economist rises to sound a warning about inflation, he had better watch out. The carpet may be pulled from under his feet and the subsequent crash will be not that of his clairvoyance or posterior striking the ground, but that of the occurrence of an economic slump. Nevertheless, the issue, to which I shall address attention, as others are addressing theirs, is a protracted inflation of serious proportions. This attention, I believe, results more from the likelihood of further inflation than from concern over the proportions it has attained in the past. The political discussions of this problem, moreover, as so often has been the case, consider the treatment of symptoms rather than causes. In this review of the problem and its manifestations, I shall consider first the meaning and roots of the problem, although primary concern is with its implications for physicians.

In a general way it is satisfactory, I suppose, to describe an inflationary period as one characterized by rising prices. This diagnosis, however, is too symptomatic. To illustrate a better approach to the problem, let me tell a realtor's story. He reported that a former client, a few years after she bought a house, observed, "Gosh, Mr. ———, we've used this house for three years and now it's worth more than when we bought it." To this he accurately replied, "Mrs. ———, your house isn't worth more, the American dollar is worth less."

This approach will provide a definition closer to the roots of the problem. It is considerably more accurate to define inflation as nothing more nor less than the depreciation of a society's money. The extreme case illustrates what is involved. In normal times one can take a pocketful of money to the market and obtain a basketful of groceries; in a severe inflation a basketful of money can buy only a pocketful of groceries. Certainly the inflation being experienced has not attained such catastrophic heights; but in many ways its less extreme behavior combined with exceptional persistence makes it highly pernicious.

How may the depreciation of money be brought about? In former times the king chipped the edges off the coins of the realm. After the chips were melted down, the king could mint some extra coins. Of course, the chiseled coins lost value and businessmen were forced to weigh them individually. This bygone diversion of businessmen from the functional purposes of their businesses, I deliberately point out, is a source of merriment to some of our modern historians. To return to the inflationary process, it is today something more subtle. The depreciation of the currency is closely tied to the expansion of the federal debt. So, the government increases its debt, then it entreats the citizenry to lend it $75 worth 100 cents each (1945), for which in ten years, and this is a matter of historical record, it repays $100 worth 67 cents each (1954).[1] The economics involved and the economic effects achieved, whether the methods are old-fashioned or new fangled, are the same. The morality displayed in high places is equally deplorable. Physicians would with uncanny accuracy diagnose this disease as a chronic ailment of the fiscal system. It would be reasonable also to classify it as contagious—from the Democrats to the Republicans.

This is how inflation originates. But why has it displayed such extraordinary persistence? Well, many economists describe the era since World War II as prosperous, as indeed it has been, though unfortunately, this prosperity has been tarnished by the dangers and inequities of inflation. Many of these same economists believe that the prosperity has been due chiefly to them and to one of their innovations—automatic stabilizers. That there are in the economy today some powerful forces which resist adjustment is something I will not deny. I may have occasion to cite some of them later on. However, in my efforts to discover and identify automatic stabilizers, I have come to the conclusion that these economists are referring to the wrong part of the ship—or whatever it is that they are using for analogy. As I examine the economy and its behavior in recent years, I have not found stabilizers; I do not know what you have found, but I have found escalators. In brief these economists have shown greater interest in espousing inflation than in supporting a free economy with its self-adjusting properties to provide real growth without inflation. (I suggest that the economic annalists take another and better look at the 1890's when the economy without the accumulation of capital and technical acumen which it had by 1940 experienced without inflation tremendous improvements in both capital formation and consumption standards.)[2]

Some people in our society today manifest puzzlement about the persistence of inflation. I do not know why they should. The reasons for the persistence are the reasons why I preferred to speak on exactly this topic, and those reasons are the

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ubiquity in our economy of price (and wage) escalators and the presence of certain parties who have a vested interest in inflation.

In their various efforts to identify economic groups which are favored by inflation and those which are hurt, economists usually return to the time honored classification: the debtors benefit, the creditors are hurt. Now if one is going to discover parties which have a vested interest in inflation and its perpetuation, he just has to look for the big debtors. The biggest is not at all difficult to locate; it is the United States Treasury. The federal government and its treasury naturally seek low interest rates to keep down the service costs of their huge debt and as debtors have an instinctive interest in paying back cheaper money than was borrowed. It should not be necessary to add that this government and its Treasury Department have vast powers to carry out their ends. Although it is not possible briefly to explain the key role interest rates play in monetary policy, one must point out that for some years the Treasury held the Federal Reserve Board captive to prevent a rise in interest rates on the federal debt, and so contributed immensely to inflation in those years. Even more recently the Treasury has dragged its feet on offering on its issues a return the market calls for. This behavior is not irrational; it is practically inevitable. The vested interest of our greatest debtor, the federal government, in inflation must be a powerful force contributing to its continuance.

Although it is quite common, I think, to associate escalation with organized labor, it would not be fully accurate or fair to think that contracts with such clauses are the exclusive property of organized labor. In addition to its success in obtaining escalator clauses, organized labor, it must be admitted, holds a strategic position in society today. This position has slowly achieved recognition by economists in this country and in Britain, where its relationship to the problem of inflation has been designated as "the uneasy triangle." In Western society generally the achievement of full employment is considered a primary economic and political goal. At the same time there is a general desire to avoid the evils of both deflation and inflation. Yet, I know of no economist who has faced this problem and who has affirmed that society can both attain full employment and avoid inflation in the presence of strong labor unions. These agencies have and will clamor for inflationary governmental action to offset the unemployment effects of their wage policies. If the 1954 experience is any indication, moreover, not much unemployment will have to arise before the clamor for inflationary action takes place. Last fall, before November 6, I had the pleasure of asking some people what they would have done then with the public works they wanted to initiate in 1954. The political power of organized labor, even if exaggerated, plus its economic power of escalation and the instinct of a politician to retain office combine to provide a set of powerful forces contributing to the persistence of inflation in the United States economy.

A third force, the last one I will have time to cite, and at the same time one that strongly contributes to the current shortage of money, is the effort of the citizenry to adjust to inflation in defense of their own private economic interests —to hedge the gains made by more aggressive and favored groups and generally to avoid the penalties which inflation would otherwise impose on them.

I have already stated that during an inflation the debtors benefit, the creditors are hurt. One must point out further that as in time of depression or panic there is a flight to money, so during an inflation there may well be a flight away from money to debt and property. One economist has recently described what he would expect of a rational man who expected prices to continue to rise 3 per cent per year for the rest of his life: "The logical thing for this man is to cancel his life insurance and carry only term insurance, which builds up no savings. He will stop buying E bonds or making savings deposits. He will buy common stocks or real estate, although their prices will soon be driven to speculative heights based on expected future inflation. It will pay him to put a new mortgage on his house and to invest the proceeds in something that looks inflation proof. The deeper he can get himself into debt in order to acquire 'real' assets, the better off he will be, as prices rise."

What are the results of such behavior—of all individuals reacting rationally to the anticipation of further inflation? They are described as follows: "Inflation, . . ., will warp the saving habits of consumers and the investment and production decisions of businessmen." . . . "The anticipated inflation, moreover, is apt to speed up beyond anticipation, as more and more people adjust to it." Ultimately certain governmental measures might be demanded which "would spell the end of a free economy."[3] What does this chain of events amount to? Nothing more than the perpetuation if not acceleration of inflation through the efforts of private citizens to adjust to it in the defense of their own private and legitimate economic interests. Herein lies another potent built-in inflator.

The possibility that an upset may occur, despite the power of the inflationary forces in our economy, is a factor which both restrains some of these forces and underlies much of the real concern about inflation. Perhaps our latest bubble is capable of endless inflation if it is just blown up gradually enough. Yet the possibility of some even serious disturbance should not be discounted. The nature of its causes would, as in the 1929 experience, be understood better after the event than before. And should it occur, I think that the same rigidities in the economy which in good times may contribute to their continuance could in a depression cause its protraction. In particular, the panacea of raising prices to cure all economic ills which received its formal adoption among the leading economic policies of Western Nations in the 1930's—and made the return of prosperity wait for a war—could cause even more harm in a depression than it causes in inflation. Right now after a 100 per cent rise within seventeen months in the discount rate of the Federal Reserve Bank of New York (from 1½ per cent on April 14, 1955, to 3 per cent on August 24, 1956), along with rises in the costs of production, effective demand is likely to be reduced and one may expect an economic adjustment similar to that of 1954 and perhaps a little more serious. Present conditions, however, do not portend anything more ominous than that, after which the long run trend of rising prices—protracted inflation—is likely to resume. The imminent future, nevertheless, suggests caution in the handling of one's own private economics.

Knowledge that there are powerful forces at work in the economy to perpetuate and reinforce inflation is quite valuable. More important to physicians, however, are the ways in which inflation and its persistence affect them and their economic interests. One such effect is the unfavorable light in which physicians have been placed as the result of the prolonged duration of the inflation and the reporting and interpreting of price indexes on the basis of years occurring late in the inflationary period. There is actually no harm in the reporting, as such, of prices on a base established well within the inflationary period. The difficulty and harm arise from the interpretation made on such a base.

It has been a common experience for physicians to hear, during the last year, that their prices, according to the Consumer Price Index, have risen more than other prices or are leading the rise in prices. For example, it is noted that since 1947-1949 all items in the Consumer Price Index had by 1955 risen 8 per cent but those for medical care had risen 28 per cent and those for physicians' fees 23 per cent. These may well be the percentage changes that have occurred since the 1947-1949 interval, but are they the percentage changes which depict properly the inflation which has been experienced? I would say not.

Rather than look at all items in comparison with the prices of medical care, let me take two important, key categories, commodities and services. When inflationary forces strike the economy, one knows whose prices rise faster—the commodities', not the services'. What happened to the price of sugar in World War I? Why was rubber rationed in World War II? What happened to its price in 1950? You as well as I and many other people know well that the commodities are those items which reflect the impact of inflation—first and most. Services' prices lag behind; they follow slowly if the inflation is protracted and a readjustment of prices fails to occur before their prices can catch up.

What does the 1947-1949 base for the index of prices reveal about the behavior of commodities' and services' prices? It tells the opposite of all economic and business experience; it tells (as shown in Table 1) that during an inflation the prices of services rise earlier and farther than the prices of commodities. Obviously the picture it provides of the economy is misleading; it cannot be reliable for interpreting the behavior of economic phenomena; at least it does not correctly portray the phenomenon of price behavior during an entire inflationary period.

TABLE 1

COMPARISON OF THE 1935-39 AND 1947-49 BASES FOR CERTAIN INDEXES

	1947-49 = 100	*1935-39 = 100*
1955 av. All Commodities	108.1	204.6
1955 av. All Services	131.4*	179.9
1955 av. All Items C.P.I.	114.5	191.4
1955 av. Medical Care & Drugs ..	128.0	177.8
1955 av. Physicians' Fees	123.3	165.8

* This index on the 1947-49 base excluded rent. This exclusion, however, cannot have more than negligible effect on the index for all services, since the separate index for rent on the 1947-49 base was hardly different. It was 130.3.

Source: Bureau of Labor Statistics.

If one wants to see how prices behave during an inflation, he has to review the behavior from the early days of the inflation. In the present case this means going back to 1939 or 1940, for which the 1935-1939 base is quite suitable. Now, upon examination of the price indexes on this base one finds the kind of behavior general experience would lead him to expect—commodities' prices have risen farther during the inflation than have services' prices; and the price index for all items has risen farther than that for medical care and somewhat farther than that for physicians' fees. The rise of the latter indexes in more recent years is essentially a catching up phenomenon. It results from the prolongation of the inflationary period which, in turn, has caused the rise in other prices to increase the costs of providing medical care. In general it constitutes a belated adjustment of prices to make more equitable the rates of remuneration in different parts of the economy. The percentage changes which have occurred since 1947-1949 cannot be denied; they did not occur in a vacuum. When placed in their proper context they are meaningful and understandable; they do not explain what happens during an inflation nor do they reveal who or what is responsible for inflation. They merely reveal that in the latter stage of inflation, services' prices tend to catch up; actually commodities' prices lead the inflationary parade.

Economics has a number of interesting aspects. Everyone likes competition for the other fellow;

he would not mind having a little monopoly for himself. Likewise inflation is not objectionable when it raises the prices I receive; it is bad only when it raises someone else's prices. In large part this is just what is involved in the objections to recent rises in the prices of medical care items, apparently they are not supposed to catch up. But inflation under recent institutional developments has even more specific implications for physicians' prices.

The institutional factor to which I allude is the schedule of fees, allowances or benefits, however it is best designated. On this matter there is more, certainly, that I do not know than that I do. I have been informed that such schedules arise chiefly from the intervention of third party mechanisms—as workmen's compensation laws and various forms of health and accident insurance. The rapid expansion since the war in all forms of health insurance is one factor which has contributed to the recent prominence of these schedules. Another, surely, is the impact of inflation itself. When incomes are low or are falling, emphasis is placed upon the physicians' adjusting fees (prices) to incomes; on the contrary when incomes are rising and high, the use of standardized fees through schedules is desired. From the consumer point of view, this preference apparently stems from the belief that averaging will hold medical care prices down during an inflation. Yet, it ought to be obvious that not all consumers can benefit from this abstract averaging; considering consumers by income levels, those at the top income to which service benefits have been extended will tend to benefit most. There are other ways also in which the averaging of charges is likely to be uneven in its incidence among both patients and physicians.

There is another more subtle way in which these schedules affect the prices physicians may charge (but do not always collect) and it is especially significant during inflation. The use of schedules subjects physicians' fees to administrative control, which so far, fortunately, physicians have only had to share with other private parties. But the very existence of this administrative machinery because it holds physicians' prices constant while others are moving up places physicians in the unpopular position of being forced occasionally to request upward adjustments. This circumstance plus the red tape involved in review can, during inflation, cause the physicians' fees to lag even farther behind other prices, especially commodities', than would otherwise naturally be the case in a free market economy.

I have stated earlier that the beneficiaries and the penalized of inflation can be unequivocally classified respectively as debtors and creditors. As one of the thriftier groups in the economy, physicians are likely to fall into the creditor category. As such then they are more likely to be penalized by inflation than be rewarded by it. By reason of their being self-employed, being entrepreneurs as well as workers, and private citizens and consumers as well, there are several ways in which inflation may affect them. At the same time, there are available to them ways in which they may with some success hedge against the adverse effects of inflation. As I have observed, the chief weapon by which the citizen can adjust to inflation, is to increase his debt. "The deeper he can get himself into debt in order to acquire 'real' assets, the better off he will be as prices rise." The more specific avenues of attack suggested are the cessation of savings, purchase of common stock and real estate, mortgaging of property and investment of the proceeds in "something that looks inflation proof."

As I see it the best conduct for a physician in the face of inflation is to acquire title to real estate, an office building, perhaps, as well as a home, to mortgage the property to the hilt, and to invest the proceeds in "growth" investments. Suppose that a physician in 1945 had $40,000 in savings and owned a home with a market value of about $15,000. One could then estimate his private net worth at $55,000. He would first place a $10,000 mortgage on his home and negotiate the purchase of a $50,000 office building on which he would promptly obtain a mortgage of $40,000. Assume he obtained the loans, totaling $50,000, at 5 per cent interest, and distributed over the 125 common stocks used in Moody's index of industrials the $40,000 remaining available to him. Assume he has the average net income of a physician, ranging from $10,975 in 1945 to $15,000 in 1954. Out of this income assume he saves $2,500 a year and uses that sum to amortize his mortgages in twenty years. At the end of ten years (as shown in table 2) his net worth (paper if he does not liquidate his holdings and realized if he does) would have risen to $232,829.70. (This is the sum of $10,629.70, the difference by which the dividends on $40,000 in stocks exceeds the interest on $27,500 to $50,000 of mortgages, plus the $87,200 value of his stocks, rising from $43.94 to $95.81 per share, plus the $162,500 value of his real estate, assuming it rose 2.5 times in value, minus the $27,500 remaining on the principal of the mortgages.) This value does not include any net income that could possibly have been realized from the rental of other offices in the office building.

Another physician with the same net worth in 1945, all in the form of savings would in 1954 have attained a net worth of $99,208.33—by putting his $55,000 in Series E bonds, and by placing his annual savings of $2,500 in Series H bonds. (This sum does not include the interest on the interest on the H bonds, just as no earnings were assumed made by the other physician's reinvesting the net difference between dividend receipts and interest payments.) It is interesting also to reflect that while the prime securities of the United States Treasury such as Series E bonds were in current dollars earning 3 per cent per annum compounded, and in dollars of constant value were earning a return of *minus* 1.07 per cent per annum, the common stocks of private enterprise (dividends and capital appreciation) earned 19.30 per cent per annum in current dollars and 9.63 per cent per annum in constant dollars.

TABLE 2

BALANCE SHEETS FOR TWO PHYSICIANS IN 1945 AND 1954

ASSETS		LIABILITIES AND NET WORTH	
PHYSICIAN A			
Original Situation January 1945			
Cash	$40,000	Liabilities None	
Real Estate			
Home	15,000	Net Worth	$55,000
	$55,000		$55,000
Revised Situation January 1945			
Real Estate		Liabilities	
Home	$ 15,000	Mortgage	$ 50,000
Office	50,000		
Stocks	40,000	Net Worth	55,000
	$105,000		$105,000
*Situation December 1954**			
Cash	$ 10,629.70	Liabilities	
Real Estate		Mortgage	$ 27,500.00
Home	37,500.00		
Office	125,000.00		
Stock	87,200.00	Net Worth	232,829.70
	$260,329.70		$260,329.70
PHYSICIAN B			
Original Situation January 1945			
Cash	$55,000	Liabilities None	
		Net Worth	$55,000
	$55,000		$55,000
Revised Situation January 1945			
Govt. Bonds		Liabilities None	
"E" Series	$55,000	Net Worth	$55,000
	$55,000		$55,000
Situation December 1954			
Cash	$ 3,375.00	Liabilities None	
Govt. Bonds			
"E" Series	73,333.33		
"H" Series	22,500.00	Net Worth	$99,208.33
	$99,208.33		$99,208.33

* Does not include net rental income from office building.
1954 net worth in 1945 dollars: Physician A, $155,995.90; Physician B, $66,469.58.

Some are going to wonder where the Bureau of Internal Revenue fits into this picture. Obviously both of the net worths should be reduced by about one-fourth. The first physician, however, could not fare worse than the second. Most of his increase in net worth occurred in the form of a capital gain on which the maximum "take" of the Treasury is 25 per cent. Moreover, his interest payments, even on his home, are tax deductible. It ought also to be eminently clear that once a person's income passes the 25 per cent tax level, it becomes advantageous to him to borrow funds on which he can take interest deductions (from current income) to purchase securities with growth prospects on the capital gain from which the maximum government take is 25 per cent. A lot of people, as a matter of fact, are aware of these relationships.

When to be a creditor and when to be a debtor is the really difficult problem. No one can predict the future with sufficient certainty to decide this matter correctly all the time. In general, I would say, it is desirable to shift to debt and property when returns on loans (or money) are considerably below what property can earn, as was the case in recent years until 1952 or 1953. Obviously the opposite action will be advisable when such a difference does not exist. I admit further, however, that tax conditions will also influence one's behavior.

But, you are going to object, we are physicians, not realtors, stock brokers or economists. That may well be; but if you do not want to lose your shirt you are going to be forced by the government—under recent monetary (inflation) and fiscal (tax) conditions—to despecialize. The physician whose net worth was $99,208.33 in 1954 dollars was really only $66,469.58 in 1945 dollars, even though he started with $55,000 in 1945 and saved, he thought, after taxes, $2,500 per year. The greater emphasis in this paper has been given to the distraction provided by inflation. That provided by taxes is equally severe. Within the next few hundred years, perhaps sooner, some historian will discover that the diversion from their business functions imposed upon businessmen by recent monetary and fiscal conditions rivals quite successfully the lost motion in which their primitive antecedents engaged by weighing chiseled coins.

Briefly, I have pointed out that inflation is a symptom of monetary depreciation, in modern times related closely to increases in the federal debt; that the Treasury as the biggest debtor promotes inflation by trying to minimize the burden of its debt; that certain parties thrive on spiraling wages and prices; that private attempts to adjust to inflation tend to accelerate it; that physicians' prices lag rather than lead inflation, and may be set back further via administrative—even though private—controls; and that during inflation physicians may suffer as creditors. On the one hand, in the best long run interests—their own and the society's—they must oppose further inflation; but if it is just not to be controlled they must learn how to adjust to it in defense of their economic interests.

535 N. Dearborn St.

BIBLIOGRAPHY

1. These values of the dollar are reported in United States Department of Commerce, *Business Statistics* (Washington. G.P.O., 1955) p. 31 from data developed by the Bureau of Labor Statistics.
2. See Dewhurst and Associates, *America's Needs and Resources, A New Survey* (N.Y., Twentieth Century Fund, 1955), Table 14, p. 40, especially the decennial changes shown in columns 10 and 11.
3. Wallich, Henry C.: Perils in the Inflation Psychology, *N. Y. Times Mag.* Jan. 20, 1957, pp. 40, 42.

Special Article

Legal Medicine

Ancient and Future

HERMAN WING, M.D., LL.B., *St. Louis*

MEDICAL JURISPRUDENCE, legal, or forensic medicine as it is sometimes called may be defined as the science which applies the knowledge of medicine to the benefit of the law—that body of medical and para-medical scientific knowledge which may be of service to the administration of law. There is no particular date at which forensic medicine as such emerged as a separate scientific entity. It arose out of necessity and usage and was a by-product of such knowledge.

When the judge and the courts avail themselves of medical expert testimony depends essentially on two sets of factors: (1) a high development of the law, or (2) a high development of medicine.

The study of the history of legal medicine must therefore follow the attitude of the courts and the perfection of medicolegal technics. Even today, one can see that sometimes the latest scientific development in medicine is not used by the courts, whereas rather inadequate medical concepts may be relied upon.

HISTORY

One must keep in mind that medicine has a history as ancient as man himself. By the process of trial and error man has obtained certain knowledge of substances which would combat pain and disease, cause death, and be of medical value. Such knowledge was handed down from generation to generation and certain individuals became expert in matters of health and disease, and thus the medicine man was evolved. He became a powerful influential member of society because of his knowledge of drugs and of primitive surgical procedures which were all reinforced by magic and witchcraft.

The law itself is as old as society for, when men began to group together, inter-relationships arose governing the conduct and mores between the individuals and the groups. The rights of individuals and groups had to be defined. This gave rise to a system of law. Certain standards were set up by society so that the individuals and the group could survive.

Thus is can be seen that forensic medicine truly came about when there was an integrated system of law and an integrated body of medical knowledge.

ANCIENT HISTORY: 3000 B.C.-1000 B.C.

The history of such developments, of course, is limited to that which was written. Written history goes back only about 3000 years B.C. when strangely enough writing of one sort or another evolved about the same time in several unconnected places. When one studies the history of medicine one must regard time elements. It is known that cultured and learned civilizations were developed in Egypt, Babylon, India, China, and Sumeria.

Many of the papyri writings of Egypt and the cuneiform writings of Sumeria and Babylon record that there was a knowledge of medicine which was systemized and even had some of the scientific approach that is known today. Certain papyri dealt with medical problems such as diseases of women and children as early as 3000 B.C. There was a definite system of law relating to crime, property, marriage and civil matters. There were certain punishments set up such as cutting off the ear, nose, hand, feet and forced labor (hence the pyramids).

The practice of medicine was organized and subject to legal restrictions. The right to practice was restricted to members of certain classes and physicians had to have certain training and study the principles that were laid down in ancient books. There were specialists in branches of medicine and surgery and some physicians were interested only in teeth, eyes and intestines or other parts of the body. There was even a state medical service with salaries paid by the Egyptian treasury. All this is documented in the Edwin Smith Papyrus which indicated that even investigations of dead bodies were made at that time whereas in later civilizations, because of religious and other prejudices, the dissection of dead bodies was forbidden. Homer, 3000 years ago, wrote of the wealth of knowledge derived by the Greeks from the Egyptians concerning the knowledge of drugs and poisons such as arsenic, mercury, copper, belladonna, hemlock and opium.

Imhotep, the chief justice and physician to King Zoser, was the architect of the first great pyramid. He was the first great man combining the science of law and medicine and might perhaps be described as the first medical-legal expert. Of course there was a great amount of divinity and magic which permeated Egyptian medicine at that time. Experiments and originality were therefore not encouraged. There was a distinction between

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Medical-legal Director, Transit Casualty Co., St. Louis.
Presented at the meeting of the American Academy of Forensic Sciences, Feb. 28-March 1, 1957, Chicago, Ill.

good treatment and bad, between competence and malpractice, based on what the authoritive canons said. Unsatisfactory result from treatments which departed from the orthodox was a serious matter for the physician and likely resulted in mutilation or his loss of life. Pliny writes that the bodies of those who died were examined to ascertain the cause of death. Also those who practiced had to have some knowledge of toxicology.

In Babylon, the Hammurabi Code was described on stone about 2000 B.C. and is possibly the oldest written code of law. It was compiled from the mass of the existing Sumerian law and dealt with crime, criminal law, and the practice of medicine. Severe penalties were inflicted for quackery. Malpractice by surgeons might result in a fine or loss of hands or life. It seems that the practice of medicine was hazardous in those days. It tended to discourage deviation from orthodox practice and to prevent any kind of progress. The earliest record of a murder trial was found in Sumeria on a clay tablet, dating back to 1850 B.C. The Hammurabi Code is known as an "eye for eye and a tooth for tooth" among other things.

The ancient Israelites who recorded their history in the Old Testament wrote "honor a physician with honor due to him." It is of some significance to know that ancient Jewish laws distinguished between the mortal wounds and those which were not so regarded. Investigation was made in cases of disputed virginity. Adultery, marriage, embalming and preparing the dead, and matters concerning disinfection and disease also were dealt with. One can easily conclude that a physician had a place in the determination of such medico-legal matters.

Much further East, in India, at a correspondingly earlier date, the right to practice medicine was restricted to members of a certain caste. Minimum marriage age for girls was laid down. The duration of pregnancy was set out. There were other requirements and opinions as regards to poisons and antidotes and medical education.

Even though the knowledge of these times is fragmentary and somewhat insufficient, there was some evidence of an established science of forensic medicine. Thus, one can deduce that, when man succeeded in creating a "civilization," problems arose and they were dealt with by means which are recognized as forming the elementary basic of these subjects: medical education, admission to medical profession, public health, toxicology and other aspects of forensic medicine.

GREEK AND ROMAN — 1000 B.C.-1000 A.D.

The next step in history was the Greek civilization to which is owed a great deal for placing medicine on a more factual basis, largely due to the methods and scientific approach of Hippocrates (460-370 B.C.). At the same time that there was a development in medicine there was a development in the field of jurisprudence. A Greek Legal Code was elaborate in criminal procedure. There was at that time discussion of a great many medical-legal questions; some on relative fatality of wounds of different parts of the body, duration of pregnancy, viability of children born before term, malingering, and other matters. Note that the ancient Hippocratic Code included an undertaking not to administer poison and advice on the use of poison, or contribute to the procuring of abortion. The whole ethical outlook of the medical profession throughout the ages has been formulized by the teachings of Hippocrates more than 2000 years ago.

All this of course leads to the Roman days with the Justinian Codes (550 A.D.). Then the early Germanic Codes and later the states of Germany, France, as well as Italy, were organized where medical schools developed to such a degree that the scientific evolution of medicine took place. Then followed the Industrial Revolution. Here one stands today with all this heritage and accumulated knowledge of the past to the present.

THE FUTURE

Is there really any fundamental difference between these ancient days and today? Where are we heading with respect to medical-legal knowledge? The horizon is unlimited in this technilogical and atomic era. There is a strong tendancy on the part of lawyers and other lay people to learn more about science and medicine. There is a need and demand for such knowledge in order to arrive at the truth in many of the litigated cases, both criminal and civil. The medical and allied medical groups are also eager to learn more of the legal significance of their work and relationships. By legal, I mean the use of scientific and medical information not only in court but in the framework of our society (Laws and Statues)—in the practice of medicine, administration of hospitals, private and state, broad health programs, and insurance matters. Industrial medicine is a booming field in which new medical legal areas are developing. The future holds in store for legal medicine the following challenges:

1. A great thirst for more knowledge by individuals who work in the overlapping area of law and medicine which must be quenched with education.
2. The formulation and development of new concepts to cope with and solve the basic problems in legal medicine. Do not forget that the field of legal medicine deals primarily with many controversial matters.

More individuals will train in both basic fields, law and medicine. More and more physicans are studying law; more lawyers are attending medical lectures and institutes throughout the country.

CONCLUSION

The following areas are of medicolegal interest. There is fertile ground for basic research, educa-

(Continued on page 990)

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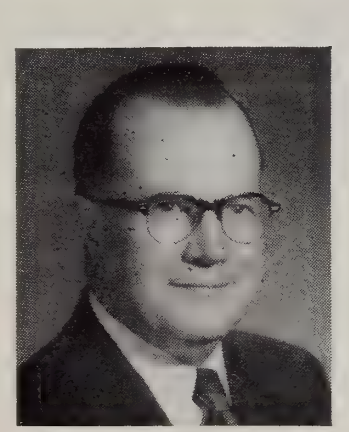
President's Page

The professional and public information program being conducted concerning the threatened Asian influenza epidemic is one of the most thorough in my memory. The Public Health Service, the American Medical Association and other interested groups and agencies have joined hands to make known to the medical profession and the public how a large part of the population may be affected by this new influenza strain. They are carrying forward a vigorous educational campaign to get people to be immunized against the virus as quickly as vaccine, presently in very short supply, becomes available.



Here in Missouri, Dr. H. M. Hardwicke, acting director of the state division of health, has activated a committee to implement the Asiatic flu informational program in our state. Dr. William C. Allen of Glasgow, chairman of the Missouri State Medical Association's Committee on Civil Defense, represents our association on the committee.

"What's all the excitement about?," I have heard more than one physician and layman say. They point out that—at the time this is written—only a relatively small number of cases have been reported throughout the United States, that the effect of the infection on an individual is not too severe, and that the death rate is virtually zero.

The answer to their question is to be found in the sweeping scope and explosive contagiousness of the disease. In other parts of the world, it has incapacitated 15 per cent, 20 per cent and upwards of the people in an entire community over a period of a few weeks.

In short, Asian influenza striking fast and hard can—if unchecked—dislocate a city's vital functions and services, and so disrupt its pattern of living and working.

Looking ahead, I believe there are two main considerations for us to bear in mind at such time as an epidemic hits.

First, there may be some danger of public panic over an epidemic, since it would probably be memory-linked to the 1918-19 "Spanish flu" epidemic, which, I have read, attacked about 20 million people in this country and resulted in about 850,000 deaths.

It would be sound, therefore, to drum home to the public that an onslaught of Asiatic flu should not be anything like the World War I epidemic. The layman should be reminded that there was no influenza vaccine back in 1918-19; he should be informed that health authorities expect the recently-developed Asian flu vaccine to be about 70 per cent effective. He should also be made aware that most people who died in the 1918-19 epidemic died, not from the flu itself, but from pneumonia and other complications. Now in striking contrast, it should be stressed, we have the antibiotics to deal effectively with the flu's infectious complications at such time as the need for treatment of secondary bacterial infections has been demonstrated.

Secondly, we are going to have to emphasize the necessity and desirability of our taking care of influenza patients in their homes. Hospitals almost certainly will not be able to take care of the case-load in view of its anticipated explosively-expanding nature. Many patients—perhaps most—should be able to get adequate bed rest and symptomatic treatment in their homes, away from a central public source of flu-spreading and pneumonia-catching.

Walter S Sewell M.D.

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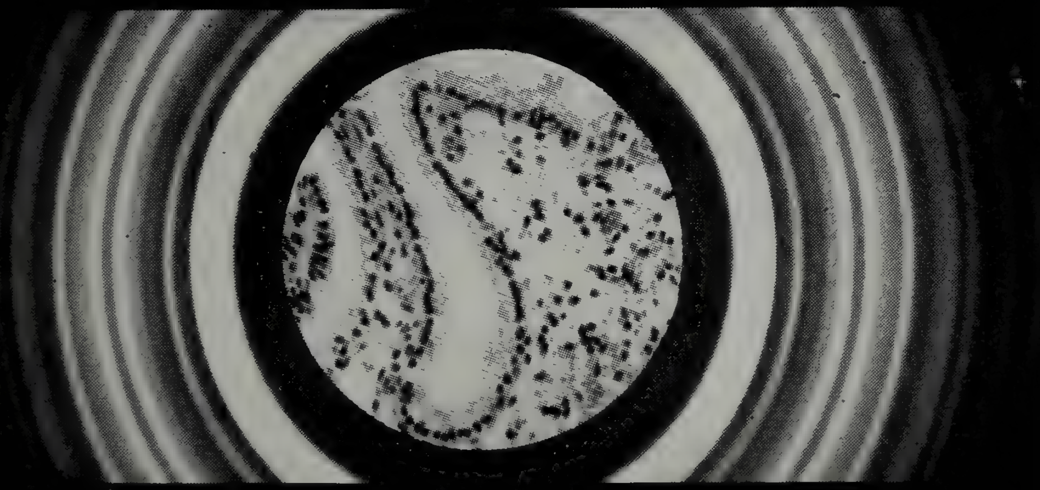

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EDITORIALS

Ad Men Plan Campaign to Encourage Public to Take Polio Shots

An intensive drive to persuade the public to get polio shots has been undertaken by the Advertising Council, Inc.

This voluntary group of advertisers and businessmen has taken on the vaccine campaign as one of its public service projects, mapping out a complete promotional program utilizing newspapers, business papers, industrial publications, transportation and outdoor advertising, as well as radio and television. Local use of these materials, in many cases, will depend on whether or not a local community drive is planned or is in progress.

Using the theme "Don't Press Your Luck—Get Your Three Polio Shots Now!," the materials make use of scare techniques by contrasting the tragic effects of the disease with the simplicity of getting Salk shots. The advisors for the campaign were the American Medical Association, the United States Public Health Service and the National Foundation for Infantile Paralysis.

Even though 42 per cent of the nation's under-40 population have received one or more shots, 48 million persons still need second or third shots. Another 41 million have not received any Salk shots at all.

The advertising industry's help comes at a good time. With so much publicity being given to Asian flu, the public is apt to overlook the real killer—polio.

Real progress is being made against polio. The United States Public Health Service reported only 902 cases of paralytic polio by August 2, compared with 2,633 at the same time last summer.

Missouri also followed the national trend. On August 16 the state division of health reported 64 cases for the year, compared with 122 a year ago.

Statistics show that three shots of vaccine are 90 per cent effective. Two shots are 80 per cent effective, while one shot is only 65 per cent effective.

Help Needed for Medical Schools

Medical schools over the country are faced by an annual deficit of about 10 million dollars. To help meet these financial needs, the American Medical Education Foundation is launching its annual drive to obtain contributions.

The goal for the medical profession is 2 million dollars, with the remaining 8 million being solicited from industry and business.

Dr. James P. Murphy of St. Louis, Missouri, chairman for AMEF, is appealing to all doctors in the state to join in the 1957 campaign. As he points out, every practicing physician, as well as the medical student, benefits from the enlargement of knowledge that comes from good medical schools.

Contributions to AMEF are tax-deductible and doctors can specify that the gifts be made to their own schools if they so desire.

The Youth Fitness Program

The problem of health and physical training promises to get a thorough airing in medical circles as a result of President Eisenhower's conference on youth fitness held last month.

Dr. W. W. Bauer, director of health education for the American Medical Association, has said the American medical profession will support any worthwhile project in the broad program for the fitness of American youth. However, Dr. Bauer added, the profession should oppose any unsound proposals or movements which are wasteful, duplicating, or which compete with existing programs.

A large part of the agitation for physical fitness has come as a result of rejection rates in military service. However, these rates give a distorted picture of youth fitness. Standards are arbitrary and varied, based on the number of examinations, with many rejectees re-examined several times and rejected more than once.

In addition, the rejection rate reports do not always take into consideration the number of volunteers. Social and educational defects, which have no bearing on health or fitness, also distort the picture.

There also exists some confusion in lay circles on the difference between general health and physical strength or "fitness."

The medical profession knows that by every solid measure today's youth is healthier than ever before. American youngsters today are taller and heavier on the average than any previous generation. Longer years of life are in store for today's youth. Chances of living to start school are better than 96 in 100; chances of living through the school years (5-18) have reached an all-time high of better than 99 in 100.

Dr. Bauer, who is one of five physicians on the President's citizens' advisory committee on fitness of American youth, commented, "I don't think American youth is going to pot." He said that while the American medical profession recognizes that there can be considerable improvement in physical fitness, it does not believe that youth has become "soft" or "flabby."

The committee was set up in June, 1956, after a presidential conference on fitness of American youth held in Annapolis, Md. A council of youth fitness, consisting of the vice-president of the

(Continued on page 992)

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Musings of the Field Secretary

The joint meeting of the Jefferson County Medical Society with the athletic coaches of the Jefferson County high schools Friday night, August 23, at the new County Hospital in Crystal City-Festus was a big step in the right direction.

Dr. Stanley F. London, team physician for the St. Louis Hawks' and the Washington University Bears' athletic teams was the principal speaker. Dr. London discussed "The Role of a Team Physician." Easy Ed MacCauley, star performer of the St. Louis Hawks professional basketball team accompanied him and gave an interesting talk on professional basketball, past, present and future. This was all tied in with questions and general discussion by the doctors and coaches on athletic conditioning, injuries and proper physician coverage of the games.

I came away from that meeting with a definite feeling that a sound cooperative relationship was being built between the local doctors and the high school coaches. Everybody gains from results of this nature. This is the second session of this type in Jefferson County which the medical society has promoted. The attendance of 25 persons on August 23 was excellent, attesting to the joint interest in this project.

The 1957 A.M.A. Public Relations Institute was held at the Drake Hotel in Chicago, August 28 and 29. This meeting was both informative and stimulating. Common problems facing county and state medical societies were given a vigorous shaking. Some problems were: Science Writers and the Working Press in Covering Medical Stories, Grievance Committee Evaluation, Preventing Professional Liability Actions, Legislative Scene Activities and Development of More Effective Ways and Means of Gaining Better Membership Understanding of Medical Society Programs. At conferences of this nature, it is helpful to learn how others have or are handling problems similar to ours.

Once again your attention is called to special medical meetings over the state during October: Kansas City Southwest Clinical Sessions, September 30-October 3, refer to pages 869 and 888, September, MISSOURI MEDICINE; Symposium on "Nutrition in Pregnancy" at Missouri University Medical Center, October 11; Southeast Missouri Cancer Conference, Marquette Hotel, Cape Girardeau, October 13; Symposium on "Modern Trends in Therapy" sponsored by St. Louis Academy of General Practice, October 13, Chase Hotel, St. Louis; Postgraduate Course on "Cardiology" by Missouri Heart Association and St. Louis University Medical School at Holiday Inn, St. Louis County, October 3 and 4; Annual meeting of the Missouri Academy of General Practice, Governor Hotel, Jefferson City, October 30 and 31. Details of these programs appear elsewhere in this journal—please look them over.

Health forums for the public under the sponsorship of the Pettis County Medical Society will be presented again this fall and winter in the Little Theatre at the high school in Sedalia. These forums are under the direction of Dr. P. V. Siegel of Smithton.

SEEK BETTER RURAL-URBAN TIES

National Farm-City Week to promote better understandings and cooperation between rural and city folk will be held November 22 to 28 this year.

This will be the third year this program to give citizens a better picture of all facets of the American life and economy has been held. Started by Kiwanis International, it now is sponsored by various organizations and civic groups in each state.

The Missouri organizational meeting was held in Sedalia during the annual state fair in August.

The Missouri State Medical Association was among the groups invited. Others included the Missouri Bankers Association, the Missouri Press Association, and various educational and business groups.

Ralph Rogers, director of field services for the Missouri Farm Bureau Federation, is state chairman of the program that ends Thanksgiving Day.

NEW MEMBERS

Day, Maxwell, M.D., 301 East 21st Avenue, North Kansas City. Clay County Medical Society.

Etherton, Monte C., M.D., Monett. Ozarks Medical Society.

Fong, Richard R., M.D., 126 South Main Street, St. Charles. Lincoln-St. Charles Counties Medical Society.

Franklin, Ralph, M.D., Morehouse. SEMO Counties Medical Society.

Gubin, Alan S., M.D., Caruthersville. Pemiscot County Medical Society.

Langeluttig, Harry V., M.D., Missouri State Sanatorium, Mount Vernon. Ozarks Medical Society.

Long, Frank B., M.D., 100 North Euclid Avenue, St. Louis. St. Louis County Medical Society.

Malouf, George M., M.D., Cuba. Mineral Area Medical Society.

Newport, Gerald, M.D., 637 West Canterbury, University City. St. Louis County Medical Society.

Painter, Andrew E., M.D., Portageville. SEMO Counties Medical Society.

Simms, Otho M., M.D., 207 North 5th Street, St. Charles. Lincoln-St. Charles Counties Medical Society.

Thiele, O. K., M.D., 1238 Culver Hill Drive, Webster Groves. St. Louis County Medical Society.

Vatterott, Paul B., M.D., 55 Chaminade Drive, St. Louis. St. Louis County Medical Society.

DEATHS

Cook, Norman L., M.D., Cape Girardeau, a graduate of Jefferson Medical College of Philadelphia, 1933; member of Cape Girardeau County Medical Society; aged 50; died June 26.

Miller, H. Edward, M.D., St. Louis, a graduate of Washington University School of Medicine, 1902; honor member of St. Louis Medical Society; aged 79; died August 3.

Niederwimer, John, M.D., Koch, a graduate of St. Louis University School of Medicine, 1943; member of St. Louis County Medical Society; aged 38; died July 14.

Wallace, Frank B., M.D., Kansas City, a graduate of Washington University School of Medicine, 1917; member of Jackson County Medical Society; aged 65; died August 14.

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News

Norman Tobias, M.D., a dermatologist in St. Louis, has returned from an extended trip to the Far East where he lectured before the Tokyo, Bangkok and Manila Medical Societies under the auspices of the World Medical Association.

The Windsor business district has lost one of its longtime residents with the closing of the office of **T. A. Blackmore**, M.D. Dr. Blackmore began his practice in Olney in 1898 and has practiced in Windsor since 1906. Dr. Blackmore will continue to see his patients at his home on North Main Street.

The Smith-Glynn-Callaway Clinic in Springfield recently pledged $50,000 to the Springfield Baptist Hospital. Drs. **Robert Glynn** and **Guy D. Callaway**, representing the clinic, made this pledge for over one-fifth of the total goal of $225,000 with which the hospital plans to rehabilitate its half-century old plant and add 30 new beds, therapy department and business offices.

"Home Safety" is the theme of the campaign being conducted by the Greene County Medical Secretaries and Assistants as their All-America City project. Working with the Springfield-Greene County health department, headed by **James R. Amos**, M.D., the group is assembling information and material for distribution calling attention to the number and nature of home accidents. Dr. Amos, in praising the organization for its concern with home safety, pointed out that home accidents, which rank second in fatalities and higher in injuries, go unnoticed. The aim of the organization's project and of the health department's safety efforts this year will be to acquaint the public with this problem in order to reduce the number of serious home accidents.

Gerald J. Malloy, formerly assistant administrator of St. John's Hospital, St. Louis, assumed new duties October 1 as executive director of the Greater St. Louis Hospital Council. The Council offices are at 427 North Euclid Avenue.

The secret of longevity in this fast-moving age is: "Slow down. Take things easier. Worry less and enjoy a longer and happier life." This sage advice comes from **Thomas B. Pote**, M.D., St. Louis, who marked his 90th birthday recently by walking five miles. Dr. Pote was graduated from Washington University School of Medicine in 1902. He worked in the federal meat inspection office in St. Louis until 1932, the last seven years as head of the office, and taught at both St. Louis and Washington university medical schools until his retirement in 1939.

J. W. Neumann, M.D., formerly of Kansas City, recently opened an office in the Moore building in Nevada.

On August 20 Arthur Broser, M.D., Pleasant Hill, resumed his practice with James E. Goodman, M.D. For the past year Dr. Broser has been teaching at the Missouri Baptist Hospital in St. Louis and at Columbia.

Richard R. Fong, M.D., formerly located in Oakland, Calif., recently entered private practice in St. Charles. Dr. Fong, a general practitioner of medicine, took over the office and practice of the late Robert J. Budke, M.D., 126 South Main Street, St. Charles.

The new 35-bed Wright Memorial Hospital opened in Trenton in August. The staff and patients moved into the $380,000 structure from the old hospital which the late James B. Wright, M.D., built in 1903 and operated until his death in 1937. The construction of the new hospital was provided for in the will of Dr. Wright.

Robert M. Matthews, M.D., a resident surgeon at Kansas City General Hospital, was awarded an all-expense trip to the September meeting of the International College of Surgeons in Chicago. Dr. Matthews, who lives in Overland Park, Kans., presented a paper on the post-operative opening of wounds.

A basket dinner and program honoring a well-known Galt physician, **U. C. Weston**, M.D., were held September 1 at the Galt City Park. Dr. Weston has served the community for 47 years. He started his practice at Lemon, near Unionville, and later moved to Osgood. After serving as a captain in the medical corps in World War I, he located in Galt. As an additional honor to Dr. Weston, a "Stork Club" was formed of persons who had been delivered by Dr. Weston. During his long career, Dr. Weston has delivered over 1,800 babies. A gift was presented to Dr. Weston by members of the "Stork Club."

The principal speaker before a study group for the staff of the Sedalia Crippled Children's Center recently was **C. Gordon Stauffacher**, M.D., Sedalia.

Progress is being made on the new Stricker Clinic in Rolla. The lot at 10th and Bishop streets has been cleared and levelled, and construction was to have begun about September 1, according to **E. A. Stricker**, M.D., St. James. The clinic building will be similar to the one in St. James, but larger.

Speaking before the Kirksville Rotarians recently on India was Oliver Hasselblad, M.D., Kirksville. Dr. Hasselblad, whose experience includes 18 years as a medical missionary in India, recently joined the staff of the Grim-Smith Hospital there.

(Continued on page 989)

New Chemotherapy

INDICATIONS:

- Rheumatoid arthritis, acute or chronic —with or without adjunctive therapy.
- Spondylitis
- Arthritis associated with lupus erythematosus or psoriasis

THEORY OF ACTION:

Aralen appears to suppress or induce remission of rheumatoid inflammatory processes by inhibiting adenosinetriphosphatase.

HOW SUPPLIED:

Aralen phosphate: 250 mg. tablets in bottles of 100 and 1000.
125 mg. tablets in bottles of 100.

Tolerance:

Aralen is usually well tolerated. Toxic effects are usually mild and to date have been transitory in nature, disappearing completely either on continuance or cessation of therapy or on reduction in dosage.

Gastrointestinal disturbances (e.g. nausea, rarely vomiting, diarrhea, abdominal cramps, anorexia) are frequent manifestations of intolerance. Temporary blurring of vision (due to interference with accommodation) is also relatively frequent.

Pleomorphic skin eruptions (e.g. lichenoid, maculopapular, purpuric), although generally mild, may preclude the use of an optimum dosage schedule. If a skin reaction persists on a reduced dosage schedule, or recurs after reinstitution of treatment with gradually increasing doses, discontinue Aralen till the lesion again disappears and consider resuming treatment with Plaquenil® (brand of hydroxychloroquine).

Less frequently transitory vertigo, headache, lassitude, or neurological disturbances, such as nervousness, irritability, emotional change, and nightmares have been reported. Instances of unexplained slight gradual weight loss as the patient's general health and arthritic condition improved have been mentioned. Occasional instances of bleaching (depigmentation) of the hair have been described.

Although an occasional instance of leukopenia, with normal differential count, has been reported (WBC about 3000), it has not proved troublesome because it has always been reversible on discontinuance, or diminution of the dose. Even spontaneous reversal may occur while full dosage is maintained.

Caution:

Aralen is known to concentrate in the liver and, although hepatic damage has never been reported, the drug should be used with caution in the presence of liver disease. In the presence of severe gastrointestinal, neurological, or blood disorders, the drug should be used with caution or not at all. If such disorders occur during the course of therapy, the drug should be discontinued. Concomitant use of gold or phenylbutazone with Aralen should be avoided because of the tendency of these agents to produce drug dermatitis.

Clinical Comments:

Of fifty patients receiving Aralen therapy, "43 have become really well; that is, they have no stiffness, and any pain that occurs can reasonably be attributed to use of joints affected by secondary degenerative changes. They have no evidence of joint inflammation, but may have a raised erythrocyte sedimentation rate. They have little or no need for analgesics." *Freedman*[3]

"One hundred and twenty-five private patients have been carefully followed clinically and haematologically while receiving well over 200 patient-years of chloroquine [Aralen] therapy. The results are considered good in 70%, one-half of these cases being in remission. Improved work performance, sedimentation rate, and hemoglobin levels paralleled the major objective gain in this 70%. 90% of them remained on chloroquine [Aralen] therapy, half for more than two years. Classical peripheral rheumatoid arthritis, spondylitis, arthritis of juvenile onset, and rheumatoid disease with psoriasis, all appeared to respond about equally well.

"It is suggested that chloroquine comes closer to the ideal for long-term, safe, control of rheumatoid disease than any other agent now available." *Bagnall*[4]

"Out of the 36 rheumatoid arthritis cases we treated . . . favorable results were obtained in 32 cases. *Bruckner et al.*[5]

References

1. Haydu, G.G.: Rheumatoid arthritis therapy: a rationale and the use of chloroquine diphosphate, *Am. J. M. Sc.* 225:71, Jan., 1953.
2. Rinehart, R.E.: Chloroquine therapy in rheumatoid arthritis, *Northwest Med.* 54:713, July, 1955.
3. Freedman, A.: Chloroquine and rheumatoid arthritis, a short-term controlled trial, *Ann. Rheum. Dis.* 15:251, Sept., 1956.
4. Bagnall, A.W.: The value of chloroquine in rheumatoid disease, a four year study of continuous therapy, read at the Ninth International Congress on Rheumatic Diseases in Toronto, Canada, June 23-28, 1957.
5. Bruckner I., and Rosenzweig, S.: Treatment of chronic rheumatoid arthritis with synthetic antimalarials, read at the Ninth International Congress on Rheumatic Diseases in Toronto, Canada, June 23-28, 1957.
6. Cohen, A.S., and Calkins, Evan: A controlled study of chloroquine as an antirheumatic agent, read at the Ninth International Congress on Rheumatic Diseases in Toronto, Canada, June 23-28, 1957.
7. Scherbel, A. L., Schuchter, S.L., and Harrison, J.W.: Comparison of effects of two antimalarial agents, hydroxychloroquine sulfate and chloroquine phosphate, in patients with rheumatoid arthritis, *Cleveland Clin. Quart.* 24:98, April, 1957.

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Asian Flu Roundup

Missouri medical leaders have agreed to combat the anticipated Asian flu epidemic by stressing home care and a voluntary priority shot program.

Success of the program, of course, depends on the public.

The program was the result of a meeting called September 10 by Dr. Henry A. Hardwicke, acting director of the division of health. A special advisory committee was formed of the 18 medical and other groups present.

The Missouri State Medical Association was represented by Dr. William C. Allen, Glasgow, chairman of the Civil Defense Committee. Dr. A. E. Spelman, Smithville, Chairman of the Rural Medical Service Committee, also attended. (The President's Page this month on page 970 also deals with Asian flu.)

The advisory committee has a double function. Through it both the participating groups and the public will be kept informed. It will be ready to swing into action whenever needed. Dr. Hardwicke plans to hold weekly press conferences, speaking in the name of the committee.

NEWS HAS KEPT PACE

Asian flu probably has received more publicity in the few months it has taken to circle the globe than any comparable ailment. While the public has been adequately informed about the expected epidemic, it still will be up to medical personnel to avert a mad rush for shots and the hospital.

The voluntary priority list for vaccine (see below) should help provide a hedge for physicians, most of whom probably already have a waiting list for shots. The advisory committee decided such a list also might help encourage those persons high on the list to go get shots. Medical personnel, law enforcement officials and public utility workers head the list.

The six licensed drug houses making the vaccine have promised to distribute it in as equitable a fashion as possible. In other words, large bulk shipments to commercial firms will not receive preference. Instead they hope to keep a steady supply coming to each doctor ordering it. The division of health has announced it plans no purchase of the serum for public distribution.

Missouri is scheduled to receive 2.5 per cent of the total production. This is roughly in proportion to its population of about 4 million. As of the middle of September about 30,000 cc. had been received in Missouri. Latest reports from the drug firms say 85 million cc. will have been produced by January. This would mean more than 2 million available inoculations for Missourians. (See below for recommended dosage for children.)

OUTBREAK WILL BE TEST

The real test of the effectiveness of the public airing the influenza has had, of course, will come when the outbreaks start. It is hoped that the idea the patient would be better off at home will have been accepted by the public. The hospitals probably will be busy enough handling flu victims suffering from complications.

The American Medical Association was among the first working for close cooperation of all health organizations to cope with the problem. In fact, the state advisory committee is the outgrowth of a meeting August 11 in Kansas City called by Dr. Carroll P. Hungate, a Kansas City member of the MSMA. Dr. Hungate called it in his capacity as a member of the A.M.A. Committee on Influenza.

The state program calls for the formation of community advisory groups when it is "deemed essential to maintain necessary services." It will be left up to the state division of health to determine when such a local committee is needed.

HOPE TO PREVENT STOPPAGES

Many of the larger cities already have placed orders for vaccine for employees in vital services to avoid possible disruption in water, sanitation and other departments.

The situation has not been without its humor. When Sheriff Arvid Owsley of Jackson County said he might buy shots to give the prisoners in his jail in Kansas City, he touched off a wave of controversy. One woman in a letter to *The Star* newspaper in Kansas City objected, saying the "prisoners were no better than dogs."

However, even immunization does not guarantee immunity because statistics show the vaccine is about 70 per cent effective. It should not be given to persons with an egg allergy. The A.M.A. Council on Drugs recommends that antibiotics and sulfa drugs not be used except for patients with complications. The Council pointed out that most viruses, including those causing Asian flu, are not affected by antibiotics and sulfa drugs.

The United States Public Health Services expects an attack rate in this country of between 10 and 20 per cent. That means between 400,000 and 800,000 Missourians probably will be hit at various times this fall and winter.

CAN HIT ALL AGES

No age group will be spared by the flu that is typified by severe headaches, rasping coughs, sore throats, aching muscles, fevers of 102 to 104 degrees accompanied by shaking chills and possible nausea. It is hardest on the very young, the aged and those in poor health.

In most cases, patients will be confined to bed for four or five days and there will be another four to five days in which they will feel weak and probably unable to go to work. This loss of man-hours could tie up public utilities if adequate safeguards are not taken.

So far the influenza has been mild in nature, with just a few deaths from complications. However, the present estimate is about 5,000 persons will die throughout the nation from complications, such as pneumonia.

The U.S.P.H.S. also hasn't ruled out the possibility the disease could become more virulent which makes a workable plan essential. If the expected epidemic doesn't develop, the entire planning procedure at least will have proved the country's health resources can be mobilized in a hurry.

(Continued on page 982)

Asian Strain Influenza Vaccine

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In keeping with its tradition of responding to the immediate needs of the medical profession, Lederle announces the availability of "Influenza Virus Vaccine-Monovalent, Type A Asian Strain," produced according to N.I.H. specifications.

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Washington

(Continued from page 928)

The American Medical Association reports the cost would be paid out of the social security trust fund. It would cover:

- Hospital service would be "the usual hospital services in semi-private accommodations."
- A total of 120 days of hospital or nursing home care would be allowed each year, but no more than 60 days of this could be hospital care.
- Admission to a hospital or nursing home would be by certification of a physician that such care is needed.
- The social security money would pay for surgical services certified as necessary by the physician.

This bill, introduced by Rep. Aime J. Forand, Rhode Island Democrat, already has received the endorsement of George Meany, A.F.L.-C.I.O. president. It is expected to attract more sponsors next year.

The second bill would establish a hospitalization plan but not otherwise disturb the social security structure. It was introduced by Rep. Kenneth A. Roberts, Democrat of Alabama.

Forand's bill, on the other hand, would increase both the ceiling on taxable income for social security purposes and the rate of taxation to pay the added costs.

It would increase the taxable income limit from $4,200 a year to $6,000. The tax rate for both employer and employee would be raised one-half of 1 per cent, and three-quarters of 1 per cent for the self-employed. Maximum retirement or disability benefits payable to a family (one wage earner) would increase from the present range of $50 to $200 a month to a range of $55 to $305.

A bill to regulate management and union welfare funds also will be before Congress when it opens in January. Its object is to guarantee equitable administration of the funds by giving full publicity to their records.

It was the outgrowth of months of hearings by the subcommittee that unanimously approved it. The hearings disclosed evidence of abuses in some of the funds, including misuse of money.

New Mental Health Commissioner

After we went to press last month Gov. James T. Blair announced a change in his new mental health commission.

Dr. Albert Preston, Jr., Kansas City psychiatrist, was named to replace Dr. Marvin L. Bills who resigned. Dr. Bills, also a psychiatrist, resigned because he was moving from Kansas City, Mo., across the state line to Kansas to live. The other commissioners are:

Dr. Edmond F. Sassin, a St. Louis psychiatrist.

Dr. E. Chaille Chaisson, psychiatrist. In private life she is Mrs. John King of Columbia.

Powell B. McHaney, St. Louis insurance executive, and president of the commission.

Francis Smith of St. Joseph, a former state senator.

Asian Flu Roundup

(Continued from page 980)

Voluntary Priority List for Vaccine:

No. 1 Medical and supportive personnel actively engaged in the care of patients.

No. 2 (a) Public Health department personnel.
  (b) Inactive personnel trained in the care of patients, who would be available for duty in the case of an epidemic.
  (c) Trainers and recruiters involved in the home nursing program and other essential personnel of the American Red Cross certified by the Red Cross to receive vaccine.

No. 3 Police, firemen, prison guards, attendants and caretakers of eleemosynary institutions and the national guard.

No. 4 Essential community services, such as public utilities and sanitation. (Public utilities cover water, electric power, gas, telephone, transportation, and so on.)

No. 5 Persons with tuberculosis and others who in the opinion of the physician constitute a special medical risk.

Recommended Dosage for Children:

For pre-school children (3 months to 5 years)—0.1 cc. intracutaneously or subcutaneously, repeated after an interval of one to two weeks.

For children 5 to 12 years of age—0.5 cc. subcutaneously, repeated after an interval of one to two weeks.

For children of 13 years of age and older, the dose for adults (1.0 cc. subcutaneously in a single injection) may be used.

CAR HEADREST RECOMMENDED

An automobile seat headrest has been suggested as a way to prevent neck injuries when a car is struck from the rear.

Reporting in *The Journal* of the American Medical Association, Dr. Albert D. Ruedemann, Jr., Detroit, says that the "whiplash injury" is becoming increasingly common due to lower seat backs in the later model cars. In addition, expressways and superhighways with congested traffic make "chain reaction accidents" more common.

A headrest, six inches high and six inches wide, fitted on top of the present seat back, would help prevent neck injuries, according to Dr. Ruedemann. The headrest is designed to follow the line of the seat, which prevents the driver from resting his head on it and becoming drowsy. However, it supports the head in case of an accident by preventing the backward movement of the head. The headrest should be used in conjunction with a shoulder-type seat belt which reduces forward motion of the body.

The headrest is screwed to the seat frame and is removable. It can be made to match the car upholstery.

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PLEASE RETURN THIS PAGE TO

Missouri Medicine
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Medical Technologists to Meet

The Missouri Society of Medical Technologists will meet October 26 and 27 at the Robidoux Hotel, St. Joseph. There will be panel discussions and presentation of papers.

PROGRAM

Saturday, October 26

2:00 p.m. Registration

2:40 p.m. Identification of Acid Fast Organisms. Co-authors: J. Carter, M.T., and Victor B. Buhler, M.D., Kansas City.

3:15 p.m. Status of the Determination of Hemoglobin Estimation by the Cyanmethemoglobin Method.
Panelists:
R. V. Riddell, M.D., St. Joseph, leader; Mrs. L. Nora Wells, M.T., Columbia; Sr. John Brendan, C.S.J., M.T., Kansas City, and Jack H. Hill, M.D., Kansas City.

6:30 p.m. Social hour and dinner.

Sunday, October 27

9:15 a.m. Professional Liability of Medical Technologists, Angelo Lapi, M.D., Kansas City.

9:45 a.m. Publication on the State Level.
Panelists:
Anne Sommers, M.T., St. Louis, leader; Lois Brunner, M.T., Kansas City, Sr. Ann Marie Skinner, R.S.M., M.T., St. Louis, and Erline Spickard, M.T., Springfield.

10:45 a.m. Physiology of Blood Coagulation and Laboratory Errors in Coagulation Procedures, Emmett B. Settle, M.D., Rock Port.

11:15 a.m. Blood Ammonia Determination in Liver Disease, Anita Gonzalez, S.M., Kansas City.

11:45 a.m. Assay and Importance of Serotonin and Its Metabolites, Carol Pierce, M.T., St. Joseph.

12:00 noon Lunch and business meeting.

2:45 p.m. Evaluation of Pregnancy Tests.
Panelists:
Hilliard Cohen, M.D., Kansas City, leader; Verna Romike, M.T., St. Louis; Frederick C. Coller, M.D., Springfield; Julia Hodge, M.T., St. Louis, and Rachael Creager, M.T., Kansas City. Demonstration by Lisa Zelmanovich, B.S., Kansas City.

4:00 p.m. Adjournment.

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Missouri Medicine in Review

(Continued from page 922)

County (Nebraska) Medical Society, September 13. The proposal provided that all members of the Society, hospital and nurses offer their services to the group of families in the income group.

Dr. J. S. Mott, Kansas City, an honor member, 88 years old, retired from active practice July 15, 1932. At that time he donated his medical library. Dr. Mott was one of the founders of the Kansas City Medical Society which served a very useful purpose during its career. In 1889, it practically was absorbed by the Jackson County Medical Society.

Sir Ronald Ross of London, who demonstrated in 1897 that the Anopheles mosquito carried the malaria parasite, died September 16 at the Ross Institute and Hospital for Tropical Diseases, London. He was director-in-chief of the institute at the time of his death. In 1902 he received the Nobel prize in medicine.

Lieutenant R. P. Rutledge, Festus, son of Dr. J. E. Rutledge, Kirkwood, was killed in an airplane crash August 24 near Managua, Nicaragua.

TEN YEARS AGO

The mortality from meningococcus infections in the American Army was 38 per cent in World War I. By dint of close attention to the diagnosis and prompt treatment of these patients, a commendable level of 2.8 per cent morality was reached in the European Theater in 1945.

Jesse E. Douglass, M.D., Webb City, spoke before the Joplin Kiwanis Club on August 12 and gave a brief review of the history of the treatment of tuberculosis.

Vern T. Bickel, M.D., Lamar, spoke before the Lamar Rotary Club on August 13 demonstrating by roentgenograms the use of x-ray in the setting of fractures.

The Excelsior Surgical Club, a national organization of surgeons who served in the Mediterranean Theater during World War II, will meet in St. Louis on October 17 and 18. The Edward D. Churchill lecture will be presented by Evarts A. Graham, M.D., St. Louis, before the St. Louis Medical Society October 17. His subject will be “Some Aspects of Bronchiogenic Carcinoma.” The lecture was inaugurated in 1946 in honor of Dr. Churchill, the John Homans Professor of Surgery of Massachusetts General hospital, who was chief surgical consultant in the Mediterranean Theater during World War II.

The annual fall meeting of the Missouri Society for Neurology and Psychiatry will be held at the Glenwood Sanatorium, in Webster Groves October 14. David A. Boyd, M.D., Indianapolis, chairman of the department of neurology and psychiatry, and professor of psychiatry at the Indiana School of Medicine, will speak.

The South Central Counties Medical Society met at the El Patio hotel, Cabool, September 19 for dinner with the following members and visitors present: J. R. Mott, M.D., Hartville; J. A. Fuson, M.D., Mansfield; R. A. Ryan, M.D., and A. C. Ames, M.D., Mountain Grove; Garrett Hogg, Jr., M.D., Cabool; R. T. Harsh, M.D., Houston; Leslie Randall, M.D., and H. L. Reed, M.D., Licking; C. F. Callihan, M.D., Willow Springs; E. C. Bohrer, M.D., and Rollin H. Smith, M.D., West Plains; C. W. Cooper, M.D., Thayer; E. E. Glenn, M.D., and W. S. Sewell, M.D., Springfield.

News

(Continued from page 976)

Jack Fleischaker, president of the Jasper County unit council of the American Cancer Society, recently announced the election of **Ralph Ferguson,** M.D., Joplin, as medical representative to the 13th district of the Missouri division of the society. Mrs. Frank L. Whitehead, wife of Frank L. Whitehead, M.D., Neosho, was elected as lay representative.

Cyril J. Costello, M.D., St. Louis has resigned as medical director and chief of staff at St. Louis City Hospital. An editorial in the St. Louis *Globe-Democrat* praised Dr. Costello for his service to the city and spoke of the community's loss as a result of his resignation.

A prominent Sedalia physician and surgeon has retired after 54 years of practice in Pettis County. He is **David P. Dyer,** M.D. Dr. Dyer long has been a member of the Pettis County Medical Society and a few years ago was honored for 50 years in practice. Dr. Dyer also has served as county coroner and was a staff physician for the Missouri Pacific for a number of years.

The historic George Hall residence in Waverly has been purchased by **George A. Kelling,** M.D. and his sons, Drs. **Jordan Kelling** and **Douglas Kelling.** The old Hall house, built before the Civil War, will be razed to make way for a new hospital and clinic. The Kellings, who have practiced medicine in Waverly for many years, plan to construct a 40-bed hospital on the site.

George Q. Dunmire, M.D., Kennett, was appointed recently to the board of trustees of the Dunklin County Health Center replacing **E. L. Spence,** M.D., Kennett, who resigned after seven years on the board.

The Cape Girardeau Rotary Club recently heard **Charles P. McGinty,** M.D., a Cape Girardeau physician, speak on lung cancer.

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Legal Medicine

(Continued from page 967)

tion and understanding. The integration of all this is Legal Medicine.

I. Medical Organization

1. State licensure: legal responsibility of physician, physician-patient relationship, malpractice and liability to others.

2. Medical organization relationships: American Medical Association, local medical societies.

3. Other special medical societies and groups, specialty groups.

4. Hospital administration and management: staff functions and responsibility, hospital liability.

5. Medical economics: private practive v. group practice, physician's tax problems, corporate practice of medicine.

II. Criminal Law

1. Forensic psychiatry: insanity and mental disease, sex crimes, treatment of criminally insane, prevention of crime, juvenile delinquency.

2. Forensic pathology: coroner and medical examiner system, investigation of homicides, toxicology.

3. Law-enforcement agencies.

III. Insurance—Civil Law

1. Casualty insurance or accident insurance: personal injury, institutes and postgraduate education for doctors and lawyers, evaluation and extent of traumatic injuries; medical testimony—the doctor in the courtroom, Workmen's Compensation.

2. Accident and health, hospitalization, life insurance: the definition of risk, hospitalization programs, law of contracts, defining disease patterns.

IV. Public Health and Industrial Medicine

1. Broad planning for prevention of disease, safety and health programs for the individual, integration of law and medicine in such matters as automobile safety, industrial accidents.

2. Legislation designed to affect medical affairs.

This list is only an outline of some of the areas of interest and certainly not in the order of importance. There are many other specific items which can be fitted into this general scheme. Like the parts of the body, all specific subjects are interelated and affect each other. The sum total is legal medicine.

The importance of all these is self evident. Their significance in our environment is increasing every day.

901 Washington Ave.

BIBLIOGRAPHY

Smith, Sir Sydney: *Legal Medicine,* C. V. Mosby & Company, St. Louis, 1954. Chap. I, pp. 1-20.

Ackerknecht, E. H.: *History of Legal Medicine,* CIBA Symposia, Vol. II, No. 7, 1950.

Regan, L. J.: *Doctor and Patient and the Law,* 2nd edition, C. V. Mosby & Company, St. Louis, 1954.

Hayt, Hayt and Groeschel: *Law of Hospital, Physician, and Patient,* 2nd edition, Hospital Textbook Company, New York, 1952.

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- *bronchopneumonia*
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- *laryngitis*
- *tracheitis*
- *ethmoiditis*
- *streptococcal pharyngitis*
- *nasopharyngitis*
- *tracheobronchitis*
- *bacterial pneumonia due to resistant pneumococci, staphylococci, or mixed flora*
- *viral or nonspecific pneumonia not responsive to other therapy*
- *lung abscess*
- *follicular tonsillitis*
- *pharyngitis caused by resistant staphylococci, Streptococcus viridans, or hemolytic Streptococcus*
- *lobar pneumonia*
- *viral URI*

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875 patients showed an excellent or good response

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References: 1. Case reports in the Pfizer Medical Department Files from fifty-three clinicians, and the following published reports: Shubin, H.: Antibiotic Med. & Clin. Therapy 4:174 (March) 1957. Carter, C. H., and Maley, M. C.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 51. Winton, S. S., and Chesrow, E.: Ibid., p. 55. LaCaille, R. A., and Prigot, A.: Ibid., p. 19.

*Trademark

†Trademark, oleandomycin tetracycline

The Youth Fitness Program

(*Continued from page 972*)

United States and five cabinet officials, also was organized at that conference. The President's citizens' committee acts as an advisory body to the council.

The recent conference, held at the United States Military Academy at West Point, N. Y., was attended by Vice-President Richard Nixon as well as other lay dignitaries, including Secretary of the Air Force Donald Quarles. Quarles addressed a dinner meeting and discussed the subject of "the Federal Government's concern in the fitness of American youth." The conference was held September 9 and 10.

About 200 government officials and national leaders convened for the 2-day conference.

Among the major topics discussed were:

Pilot projects in urban and rural areas.

How to encourage communities to harness all resources for youth fitness endeavor.

Improving community leadership for youth.

Developing more research study.

In assaying the youth fitness program, Vice-President Nixon said that "a youth fitness program would be one of the positive ways to attack the problem of delinquency." He added: "A physical fitness program would be, in effect, something to create a safety valve for the excess energy of our youth."

Dr. Bauer later briefly reviewed the history of the medical profession in relation to physical fitness programs, and said that the AMA had been actively interested since its organization in 1847. This interest took organized form in 1911 with the formation of the joint committee on health problems in education in cooperation with the National Education Association.

This committee has functioned without interruption ever since and has made notable contributions to the basic health of youth which is a prerequisite for fitness. The basic tenets of this continuing program have been outlined in numerous publications, including the three most respected books in the school health field (*Health Education,* 1948; *School Health Services,* 1953, and *Healthful School Living,* 1957).

At the President's conference on youth fitness, it was emphasized that fitness programs at the state and local level should be developed through existing organizations and coordinating groups. New and complicating organizational structures are neither necessary nor helpful.

The needed program for youth fitness is not new or revolutionary, Dr. Bauer stresses. Rather it is evolutionary in nature and based upon tried and proved policies and practices. These have achieved acceptance by representative educators, public health personnel and private practitioners of medicine: *

1. We need a screening program in the schools including checks on vision, hearing and growth to turn up problems that need referral through the family for medical or dental attention.

2. We need periodic medical examinations, preferably at the hands of the child's own family physician, to make sure children are in optimum condition for learning, for activity, for growth, and for living in general.

3. We need follow-up procedures that alert parents to the necessity of having remediable child health problems corrected as promptly and as fully as possible.

4. We need, as a corollary, a program that encourages optimum adjustment to health problems that can not be remedied and special education for those whose handicaps do not permit them to learn effectively through the usual school program.

5. We need policies for accident prevention and communicable disease control in our schools and their environs which reduce preventable illness and injury to a minimum and assure proper emergency care including first aid and follow-through when sudden illness and accidents occur.

6. We need environmental conditions in our homes, schools and communities that are conducive to health and that foster optimum growth and development.

7. We need sufficient time for a planned program of health instruction throughout grades 1-12 which keeps pace with the maturity level of children, which is taught by informed and interested teachers, and which stresses positive practices and principles of health behavior.

8. We need a broad program of physical education for all children, so well taught as to challenge and interest the weak and the average child, as well as the physically gifted.

9. We need professional leadership in education, medicine and public health with the vision to agree on individual and group responsibilities for fitness, the skills to carry these out effectively, and the ability to interpret the over-all program to assure public support.

10. We need, above all, interprofessional teamwork among educators, private physicians and public health personnel, which is based on mutual appreciation of each other's skills and abilities, respect for each other's professional prerogatives and responsibilities, and mutual dedication to the welfare of children and youth.

The deliberations of the President's committee on fitness are bound to receive a high degree of publicity. Portions of their findings, perhaps lifted out of context, may be used by certain groups for the advancement of their own pet projects. The medical profession is entitled to and obligated to occupy a central place in all movements toward health and fitness. This must be expressed largely at local levels where projects, planners and children come together.

---

* (These ten points modified from an address by Dr. Dwight H. Murray, president of the American Medical Association, made at Napa, California, January 28, 1957.)

Two Athletes Overcome Physical Handicaps

Medical help and mental tenacity helped two Olympic Gold Medal winners completely overcome severe physical handicaps, a fact the practicing physicians can use as an object lesson with their own handicapped patients.

Harold V. Connolly, 25 years old, won a 1956 Olympic gold medal in "one of the tensest hammer throwing competitions ever staged," even though he was born with a partially paralyzed left arm. This disability served as a strong incentive for his outstanding athletic performances, according to Dr. Ernst Jokl, Lexington, Ky.

As a pistol shooter, Karoly Takacs, 46-year-old Hungarian, became as good or even better with his left hand as he had once been with his right. An international champion pistol shooter with his right hand, Takacs lost that hand in an accident in 1938.

Within eight months, he was shooting with his left hand, and in 1939 he won the world championship at Lucerne, Switzerland. He won gold medals in the 1948 London Olympic games and the 1952 Helsinki games, and competed in the 1956 games at Melbourne.

Dr. Jokl, who examined both men at Melbourne, said the excellence of Takacs' athletic performance is so great as to place both his preamputation and postamputation attainments in a "class of their own."

According to Dr. Jokl, writing in *The Journal* of the American Medical Association, Takacs' case proves it is possible for the nervous and muscular systems to "relearn" a lost skill. In fact, says Dr. Jokl, it is possible for an entirely different part of the body to learn a skill formerly confined to another part. Dr. Jokl is associated with the Kentucky Rehabilitation Center, Inc., University of Kentucky.

Takacs' case is especially interesting because it involves not only the motor aspect of performance, says Dr. Jokl, but because it also involves the integration of touch, vision and equilibrium. It shows the part played by a central pattern of nervous and muscular skill in that it was possible for the man to switch from one side of the body to the other.

It also raises the question of whether some cerebral factor underlying his extraordinary efficiency before amputation also explains the ease of transfer to the other hand, Dr. Jokl said. In other words, he wondered if Takacs wouldn't have been a great pistol shooter regardless of what had happened to him.

Returning to Connolly, the 25-year-old hammer thrower, we find the underlying motivation for prolonged training is "rational in terms of his personal objectives, dignified in execution, and . . . of a high order of maturity," in Dr. Jokl's words.

Connolly suffered a birth injury. His left arm is shorter and weaker than the right and is partially paralyzed.

The disability presented him with a difficult psychological and social problem in childhood. However, he resolved to overcome the handicap, and set out to study different types of athletic training.

He trained extensively and took up weight lifting to strengthen his arm. In the process, he greatly strengthened the right arm and to a lesser extent the left. He became the first American since 1924 to win a gold medal in hammer throwing.

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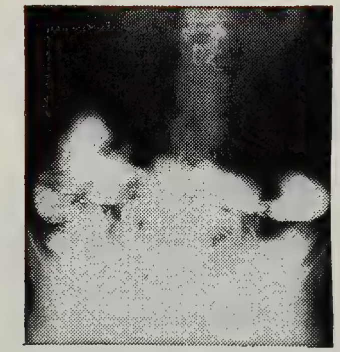

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From the Medical Schools

WASHINGTON UNIVERSITY

New Hospital

Washington University recently announced plans for a new 11-story hospital-research building east of the David P. Wohl, Jr., Memorial Hospital in the medical center. A recent grant of $743,238 from the U. S. Department of Health, Welfare and Education will be used for construction of the research portion of the building which will combine laboratory, teaching and hospital facilities. In acknowledging the grant Dean Oliver H. Lowry of the School of Medicine said:

"This award will aid in construction of research facilities in a new combination hospital-research building made possible in part by gifts from Mr. and Mrs. David P. Wohl and the Wohl Foundation. The new building will adjoin the Wohl Hospital and will match it in design."

The building is expected to cost about 3 million dollars, including equipment. Six floors will be devoted to research in pathology, surgery and medicine. From 80 to 90 hospital beds will be located on three of the floors, with remaining floors used for outpatient facilities, an amphitheatre and administration offices. There also will be two basements in the building which will have 95,000 square feet of floor space. No construction date has been set.

Fellowships

Dr. Wilbur A. Thomas, associate professor of pathology, left recently for Baghdad, Iraq, where he will spend six months as visiting professor of pathology at the Royal College of Medicine under a Fulbright grant. He also will carry on research. Dr. Thomas has been on the staff for the last four years.

Dr. Fred T. Caldwell, Jr., has received a 1-year clinical fellowship valued at $3,600 from the American Cancer Society. The awards are given by the society for training of surgical personnel in the detection and treatment of cancer. The clinical fellowship program will be under the direction of Dr. Carl A. Moyer, Bixby professor of surgery and head of the department at the School of Medicine.

Gordon R. Miller, a student in the School of Medicine, was awarded a $3200 post-sophomore research fellowship by the National Institutes of Health of the U. S. Public Health Service for research at the University College School of Medicine at the University of London. He sailed for England last month. For a year Miller has been studying salt metabolism under Dr. Phyllis M. Hartroft, of the department of pathology. In London he will continue these studies. His fellowship is one of 74 awarded by the P.H.S.

Grant

Dr. William J. Harrington, associate professor of medicine, has been awarded a $15,275 grant from the American Cancer Society to support research on leukemia. Recent studies conducted in the division of hematology at the medical school revealed that the white blood cell count of leukemic patients shows a very specific response when certain types of proteins are added to the diet. The major objective of the research will be to try to determine if dietary adjustments can be used to help control leukemia.

SAINT LOUIS UNIVERSITY

Promotions

Thirty-one members of the faculty at the Saint Louis University School of Medicine were promoted last month. Those promoted to associate professor were: Dr. Joseph Grindon, clinical dermatology; Dr. James E. Lewis, Jr., surgery. Those promoted to assistant professor were Dr. Robert E. Mack, internal medicine; Dr. John P. Pfaff, Jr., pathology; Dr. Louis Keller, clinical dermatology; Dr. Malcolm Bawell, clinical medicine; Dr. Arnold S. Block, clinical neurology and psychiatry; Dr. Jack Zuckner, clinical medicine; Dr. Albert C. Boldizar, clinical ophthalmology; Dr. Edwin J. Casey, clinical ophthalmology; Dr. Pietro Bramante, physiology. Those promoted to senior instructor were: Dr. Henry H. Hoffman, anatomy; Dr. Edward F. Burkhart, dermatology; Dr. Harold A. Franklin, Dr. Clement B. Grebel, Dr. Frank F. Huck, Dr. Nathan Kimelman and Dr. John T. Lawton, all internal medicine; Dr. Karl G. Lark and Dr. Norman E. Melechen, both microbiology; Dr. Anton F. Heusler, Dr. Robert B. Reynolds and Dr. Bettie H. Simon, all neurology and psychiatry; Dr. Masao Ohmoto, Dr. John C. Murphy, Dr. Burnet W. Peden, Dr. Paul M. Scheele, Dr. James F. Sullivan and Dr. William A. Werner, all internal medicine; Dr. W. Howard Lewin, ophthalmology and Dr. Armand E. Brodeur, physiology.

Appointments, Elections

Dr. Irwin H. Herskowitz, research executive in the department of zoology at Indiana University has been appointed associate professor of biology. He is an authority on the genetic effects of atomic radiation and has been working on the production of inherited changes (mutations) by means of penetrating ionizing radiations and various chemical substances using the fruit fly, Drosophila, as experimental material. Dr. Herskowitz is the bibliographer of all the work done with Drosophila, having published Part I and having ready for publication Part II of a series of such work. More than 10,000 scientific papers have been written using Drosophila as a research organism. Dr. Hermann J. Muller, Nobel prize winner in physiology in 1946 published Part I.

Dr. Lars Kjellen of the virus department, Central Bacteriological Laboratory of Stockholm, and Dr. Valentin Bonifas, Institut D'Hygiene, Geneva, have joined the department of microbiology as research associates.

Dr. George E. Thoma has been elected chief of the department of medicine at St. Joseph's Hospital, Kirkwood. Dr. Thoma is senior instructor in medicine and director of the radioisotope laboratory at the School of Medicine.

Summer Research

Dr. R. Walter Schlesinger, director of the department of microbiology and Dr. Maurice Green, assistant professor of microbiology spent the summer months conducting research at the Marine Biological Laboratory at Woods Hole, Mass.

Dr. Pietro Bramante, assistant professor of physiology, has completed an 8-week physiology workshop at Baylor University College of Medicine at Houston. He

(Continued on page 1008)

Postgraduate Course in Cardiology

The fourth annual postgraduate course in cardiology will be held October 3 and 4 at the Holiday Inn Hotel, St. Louis. Registration is limited for the event sponsored by the Missouri Heart Association in cooperation with St. Louis University School of Medicine and Missouri Academy of General Practice. For further information contact the Missouri Heart Association, 811 Cherry, Columbia, Mo. Ten hours category 1 postgraduate credit for AAGP members. The hotel is on Lindberg and Long Road near Lambert Airfield in St. Louis.

PROGRAM

Thursday, October 3

RECENT ADVANCES IN CARDIOLOGY

E. Lee Shrader, M.D., Presiding Officer

12:30 p.m. Registration

1:00 p.m. Case presentation of rheumatic heart disease.

Panelists:

James G. Janney, Jr., M.D., leader; Donald W. Bussmann, M.D., C. Hollins Hanlon, M.D., J. Gerard Mudd, M.D., and V. L. Willman, M.D.

Discussion will include comments on diagnostic signs, X-ray and ECG findings, second sound-opening snap time, usefulness of left and right heart catheterization, surgical indications, results of surgery, prophylactic therapy.

2:10 p.m. Intermission

2:25 p.m. Case presentation of arteriosclerotic heart disease.

Panelists:

Robert Potashnick, M.D., leader; Walter J. Burdette, M.D., David B. Flavan, M.D., John A. Nuetzel, M.D., and John J. Hammond, M.D.

Discussion will include comments on diagnostic signs and symptoms, EKG findings, use of newer laboratory tests, management including anti-coagulants, surgery, diet, work capacity, use of unsaturated oils and of sitosterol.

3:35 p.m. Intermission

3:50 p.m. Case presentation of congenital heart disease.

Panelists:

Chester P. Lynxwiler, M.D., leader; Mary Davis, M.D., Dr. Hanlon, Dr. Mudd, Dr. Willman.

Panel discussion will include comments on diagnostic symptoms and signs, X-ray and EKG findings, usefulness of right heart catheterization and dye curves, demonstration of cine-angiocardiography, surgical indications, results of open heart surgery.

5:00 p.m. Adjournment

Friday, October 4

DIFFERENTIAL DIAGNOSIS OF CARDIAC MURMURS

DRS. BUSSMANN AND JANNEY

9:00 a.m. Basal systolic murmurs

10:20 a.m. Intermission

10:35 a.m. Basal diastolic murmurs

12:00 noon Lunch

1:30 p.m. Mitral and tricuspid systolic murmurs

2:45 p.m. Intermission

3:00 p.m. Mitral and triscuspid diastolic murmurs

4:30 p.m. Adjournment

This presentation will be built around the use of the Cambridge cardioscope by which means all in the audience cannot only hear the heart sounds and murmurs through stethophonic attachments but also see them projected on the oscilloscopic screen simultaneously. This will be a practical consideration aimed at providing the physician with a useful plan for the differential diagnosis of heart murmurs which confront him. All age groups will be considered and numerous examples will be presented from tape recordings to illustrate the differential points involved. Physiological explanations will be offered whenever they will increase understanding of the problems involved. This will *not* be a duplication of material previously presented in cardiac auscultation courses at St. Louis University but rather will supplement and expand those courses; on the other hand prior attendance at such a course is unnecessary for an understanding of this presentation.

The Fourth Annual

SOUTHEAST MISSOURI CANCER CONFERENCE

Marquette Hotel, Cape Girardeau
Sunday, October 13

PROGRAM

Registration. 12:00 noon to 2:00 p.m.

2:00 p.m. to 3:10 p.m. Scientific Program.
"Acute Leukemia and Related Disorders in Infants and Children," Dr. J. P. King, St. Louis.
"Radiation Therapy for the Leukemias and Lymphomas," Dr. David Carroll, Memphis, Tenn.

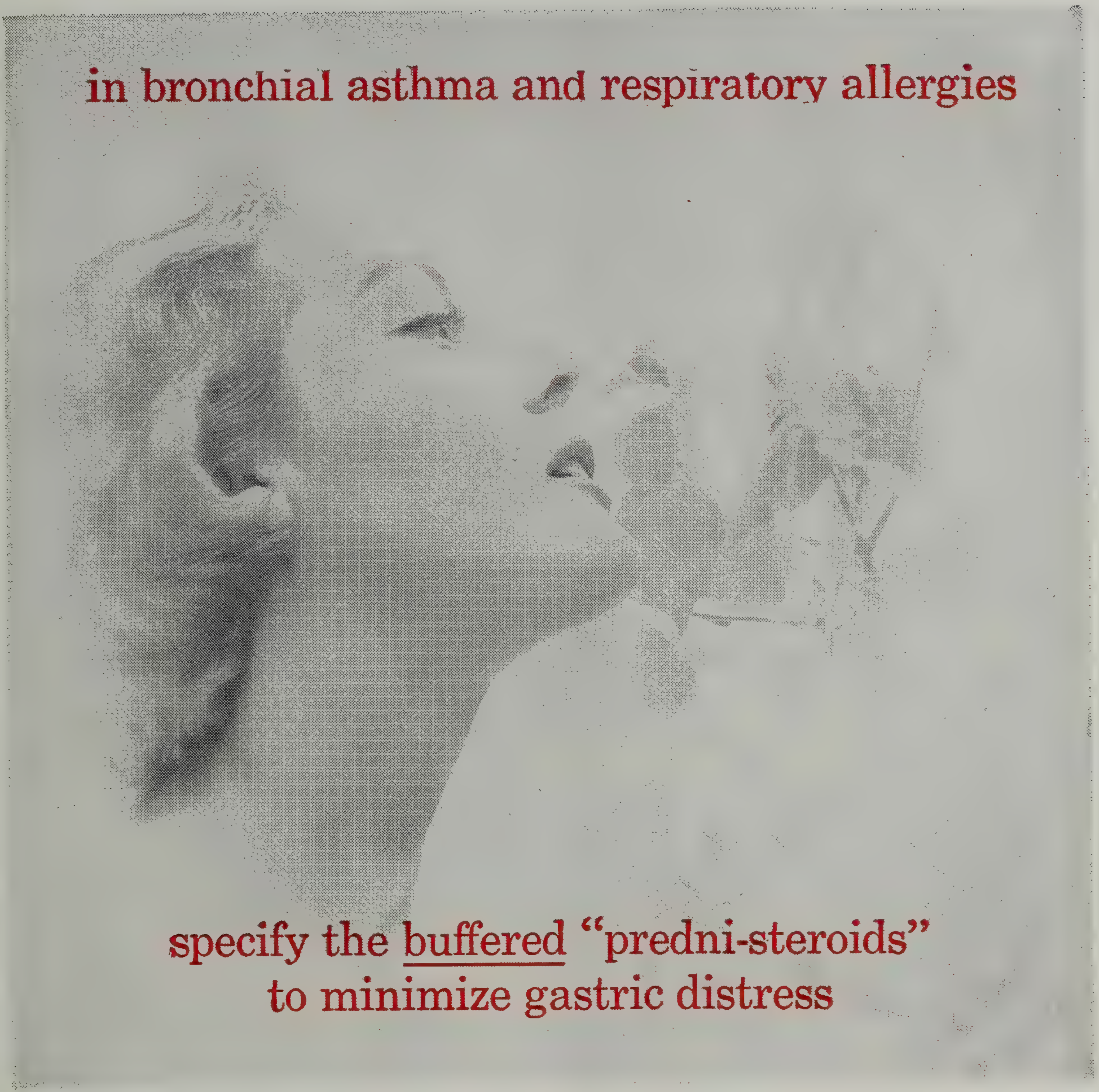
3:10 p.m. to 3:25 p.m. Coffee Break.

3:25 p.m. to 5:30 p.m. Scientific Program.
"Bone Tumors in Children," Dr. H. R. McCarroll, St. Louis.
"Tumors of the Extremities," Dr. R. J. Booher, New York.

5:30 p.m. to 6:30 p.m. Cocktail Hour.

6:30 p.m. to 7:30 p.m. Dinner.

7:30 p.m. Panel Discussion of Tumor Cases Drawn From the Tumor Service of the St. Francis and Southeast Missouri Hospitals.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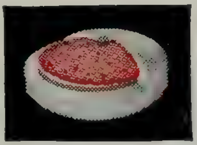

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TUBERCULOSIS ABSTRACT

MINIMAL PULMONARY TUBERCULOSIS IN MILITARY PERSONNEL: WORLD WAR II

The mobilization and maintenance of the Army of the United States in World War II, with initial physical examination of all accepted military personnel and subsequent medical control and hospitalization as necessary, provided an exceptionally valuable opportunity for studying the fate of tuberculous lesions. The medical provisions of the mobilization regulations, permitting acceptance of men with small densely scarred lesions, and the occurrence of active tuberculosis in the military forces as a result of failure of detection on entry or new acquisition of the disease during service, made it possible to study in a known military environment, the progress of tuberculous lesions that became manifest under conditions ranging from sedentary occupations to the extreme physical strains of military combat.

The study here described was set up to take advantage of this unusual opportunity. Its findings are of interest and value at the present time for comparison with currently accumulating data on the course of pulmonary tuberculosis of similar character as affected by methods of treatment (specific chemotherapy) not available at the time of this study.

A research organization was established that would permit observation over a period of years of a group of a thousand men and women with pulmonary tuberculosis in the minimal stage at the time of its first detection, or with reliable records furnishing objective evidence of its presence in that stage at some previous period, e.g., in an army induction station examination in which the lesion was overlooked. A group of approximately this size was selected and a system of follow-up was set up for a period of three years or more. Because of the nature of the material, the observations were oriented on a military basis. In essence, however, they apply equally well to tuberculosis in a nonmilitary environment.

This study of minimal pulmonary tuberculosis as it occurred in the U. S. Army during World War II was begun in January, 1944; the last patient was included in the project in June, 1946, preceding the era of chemotherapy for tuberculosis. Observations were continued until September, 1949. The primary purpose of this study was to ascertain what happened under war conditions to military personnel developing minimal pulmonary tuberculosis while in service. It was also hoped to determine the reliability or unreliability of certain criteria for acceptance or rejection of recruits for military service, such as roentgenographic abnormalities and previous history of active tuberculosis.

After excluding the 35 persons who died during the study, the average follow-up period was 52 months for each person. Chest roentgenograms taken on entry into the army were reviewed for 918 of the 967 military personnel under observation. During the follow-up period, every person in the group was examined three to six times annually for three or more years, and more than 28 films per person were reviewed.

The method of selecting patients for study is believed to have yielded a valid random sample of minimal pulmonary tuberculosis in the army. For example, the median age of all patients included in this study was 28.2 years, compared with 28.8 years for the patients with minimal disease in the army as a whole during the same period.

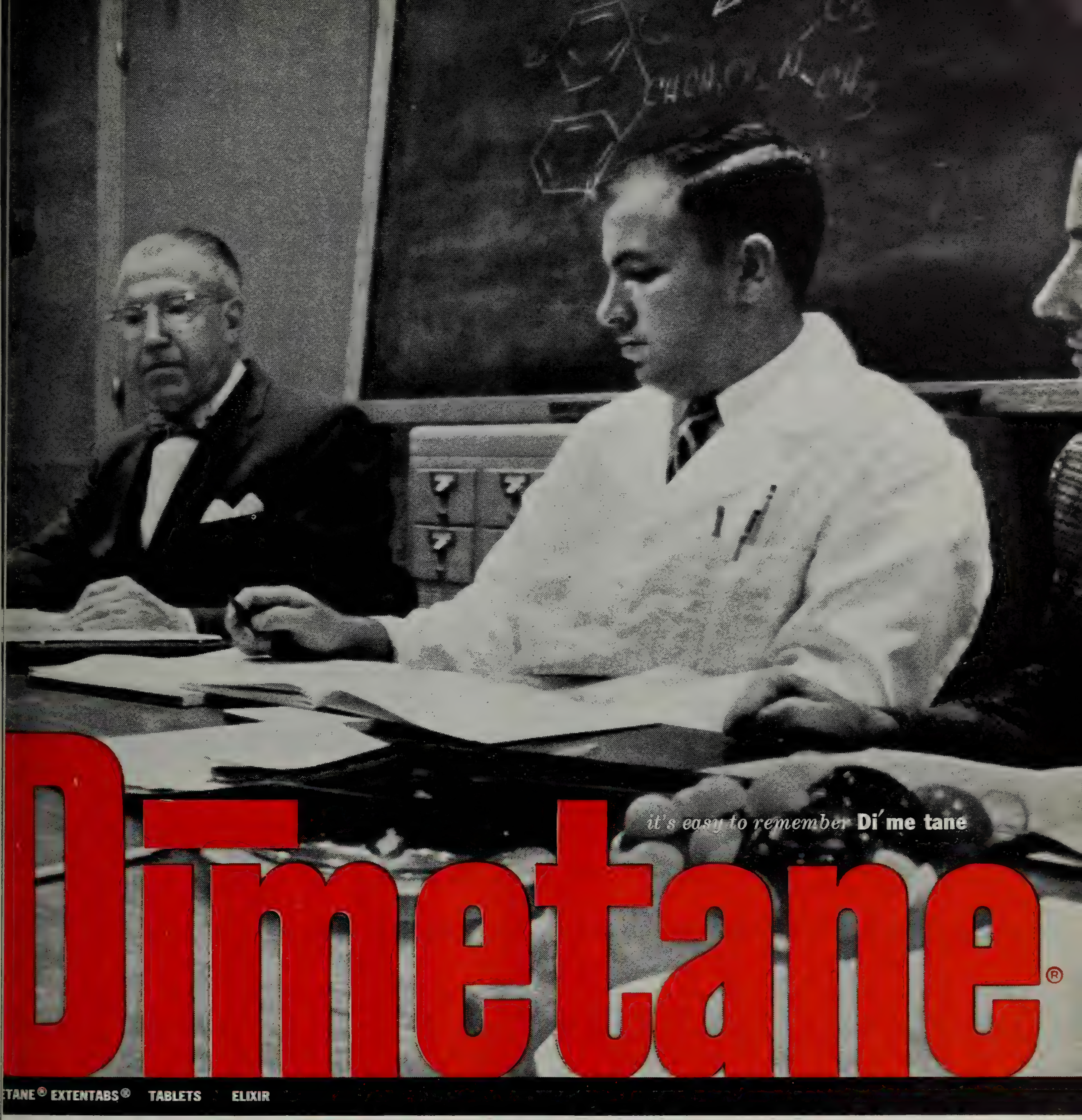
Of 625 persons with active minimal tuberculosis at the time of the first clinical classification by the Army Research Section, the disease improved in one-third and worsened in two-thirds during the period of observation. Of 342 persons with apparently inactive tuberculosis at first study, 78 per cent remained well, 9 per cent had relapses and later improved, while 13 per cent had relapses with subsequent worsening of their disease. The proportion of active cases in which improvement occurred was highest in the group 25 to 34 years of age.

Eighty-two persons developed active pulmonary tuberculosis within twelve months and 31 of them within six months after entry into military service. Despite "acceptable" roentgenograms, the majority of those with histories of active tuberculosis before admission to the army in World War II had relapses during military service. Of 94 persons with histories of pre-military active tuberculosis, 68 had relapses during service or after discharge. The probability of relapse was greatest in those with histories of pleural effusion, in those with previous extrathoracic tuberculosis, and in those who had less than six months of rest treatment. On the other hand, 30 of the 112 persons with histories of active tuberculosis in the pre-military period remained well while in service and did not experience a relapse subsequently in the period of observation. Unless adequately treated before return to duty, the hazard of relapse during military service after apparent recovery from active tuberculosis is great. The figures involved are admittedly small. These observations were made before chemotherapy became available.

Persons with calcific elements in the parenchymal lesions shown on entry roentgenograms did better in every way than would be expected on the basis of chance alone. In the absence of premilitary skin tests, the implications of this observation are uncertain. In the estimation of activity and potential reactivation, the number, distribution, size, and character of intrathoracic le-

(Continued on page 1008)

Issued by the National Tuberculosis Association.
By James J. Waring, M.D., and William H. Roper, M.D., *The American Review of Tuberculosis and Pulmonary Diseases*, January, 1957.



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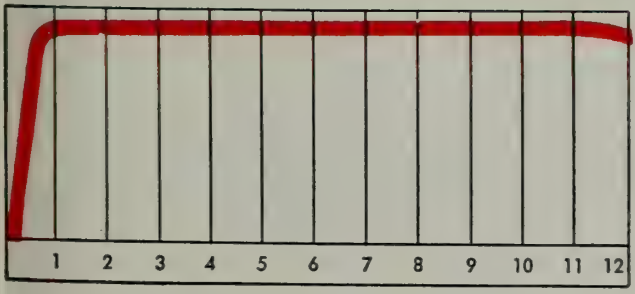
a blanket of allergic protection, covering 10-12 hours—with just one Dimetane Extentab » *DIMETANE Extentabs protect patient for 10-12 hours on one tablet.*



Periods of stress can be easily handled with supplementary DIMETANE Tablets or Elixir to obtain maximum coverage.

Dosage:

Adults—One or two 4-mg. tabs. or two to four teaspoonfuls Elixir, three or four times daily. One Extentab q.8-12 h. or twice daily. Children over 6—One tab. or two teaspoonfuls Elixir t.i.d. or q.i.d., or one Extentab q.12h. Children 3-6—½ tab. or one teaspoonful Elixir t.i.d.

Robins

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Tuberculosis Abstract

(Continued from page 998)

sions are not as helpful as roentgenographic evidences of stability or instability of the lesions. The value of a negative tuberculin test has been emphasized. Abnormal physical signs and symptoms were not very helpful in diagnosis. In 391 (63 per cent) of the 625 persons with active tuberculosis at first examination, initial recognition of active pulmonary tuberculosis with no suspicious symptoms was due to routine roentgenograms of the chest.

Among the active cases the duration of overseas service bore little relation to "breakdown" with active disease or to the subsequent course of disease. Persons engaged in combat fared the worst, while those assigned to light or moderate work outside without combat duty fared the best.

Assignment of "poor risks" to limited duty within continental United States seemed to afford a measure of protection. Persons with active tuberculosis on limited duty did no better, however, than those on general duty. These findings substantiate the general medical opinion that heavier physical exertion increases the likelihood of "breakdown" with tuberculosis and also increases the likelihood of worsening in active disease.

The type of onset, with or without symptoms, did not bear a significant relationship to the course of disease; one-half of those presenting symptoms proved to have inactive tuberculosis. Persons with persistent rales were more apt to have recurrence of activity than those without rales. Single erythrocyte sedimentation rates did not prove helpful. "Active" cases with sputum persistently negative for tubercle bacilli did better than "active" cases with sputum positive for tubercle bacilli.

Patients with longer periods of hospitalization did much better than those treated for less than six months. Approximately 96 per cent of all observed relapses occurred within the first three years after the end of treatment for the military episode of active disease. Relapses included practically all forms of intra- and extrathoracic tuberculosis.

At the end of the follow-up period in September, 1949, of 625 persons with active minimal tuberculosis at first observation, 370 were well, 228 had active disease, 16 were dead of tuberculosis, and 11 had died of other causes. Of 342 with inactive minimal tuberculosis, 262 were well, 72 had active disease, 4 were dead of tuberculosis and 4 had died of other causes. Of the 342 rated inactive at first observation, 75 had had relapses and had active disease.

In brief, of those diagnosed as having active tuberculosis at the time of the first clinical examination by the Army Research Section, 59 per cent were alive and well at the end of the period of observation, compared with 77 per cent of those diagnosed as having apparently inactive disease.

BOOK REVIEW

Treatment of Heart Disease. A Clinical Physiologic Approach. By Harry Gross, M.D., Attending Physician, the Montefiore Hospital; Assistant Clinical Professor of Medicine, Columbia University College of Physicians and Surgeons; and Abraham Jezer, M.D., Attending Physician, the Montefiore Hospital; Assistant Clinical Professor of Medicine, Columbia University College of Physicians and Surgeons. W. B. Saunders Company, Philadelphia, London. 1956. Price $13.00.

The book was written as a presentation of therapy and heart disease based upon sound physiologic principles. The book, however, is more descriptive in terms of physiologic principles involved than in treatment. The sections on the commonly used drugs in cardiology, digitalis and quinidine are at best reviews of previously published material without endorsement of methods. The Section on anticoagulation mentions principally dicumarol and ignores the other drug methods of administration.

The book is attractively arranged and easy to read due to the employment of newspaper type. The sections of the various disease entities are classically arranged under the disease state in question such as degenerative heart disease, hypertensive heart disease, rheumatic fever. One section, "Surgery in the Cardiac Patient," includes pregnancy in heart disease which is worthwhile. Likewise, the section on rehabilitation and psychosomatic aspects of heart disease are well done.

In general the reference material is well organized and the references are adequate. In the appendix, a considerable space is devoted toward diets used in the management of cardiac patients. This probably will be of some value in the practical management of such patients.

In general the book should be of service to the general practitioner and to the medical student. The specialist in cardiology probably would take issue with some of the text. J.W.B.

From the Medical Schools

(Continued from page 995)

was awarded a fellowship by The Heart Institute of the National Institutes of Health.

Dr. X. J. Musacchia, associate professor of biology, spent the month of August as a researcher on blood vascular problems and hypothermia at the laboratories of the National Research Council of the Division of Applied Biology, Ottawa, Canada. His colleague was Dr. Olivier Heroux, a principal investigator for the National Research Council.

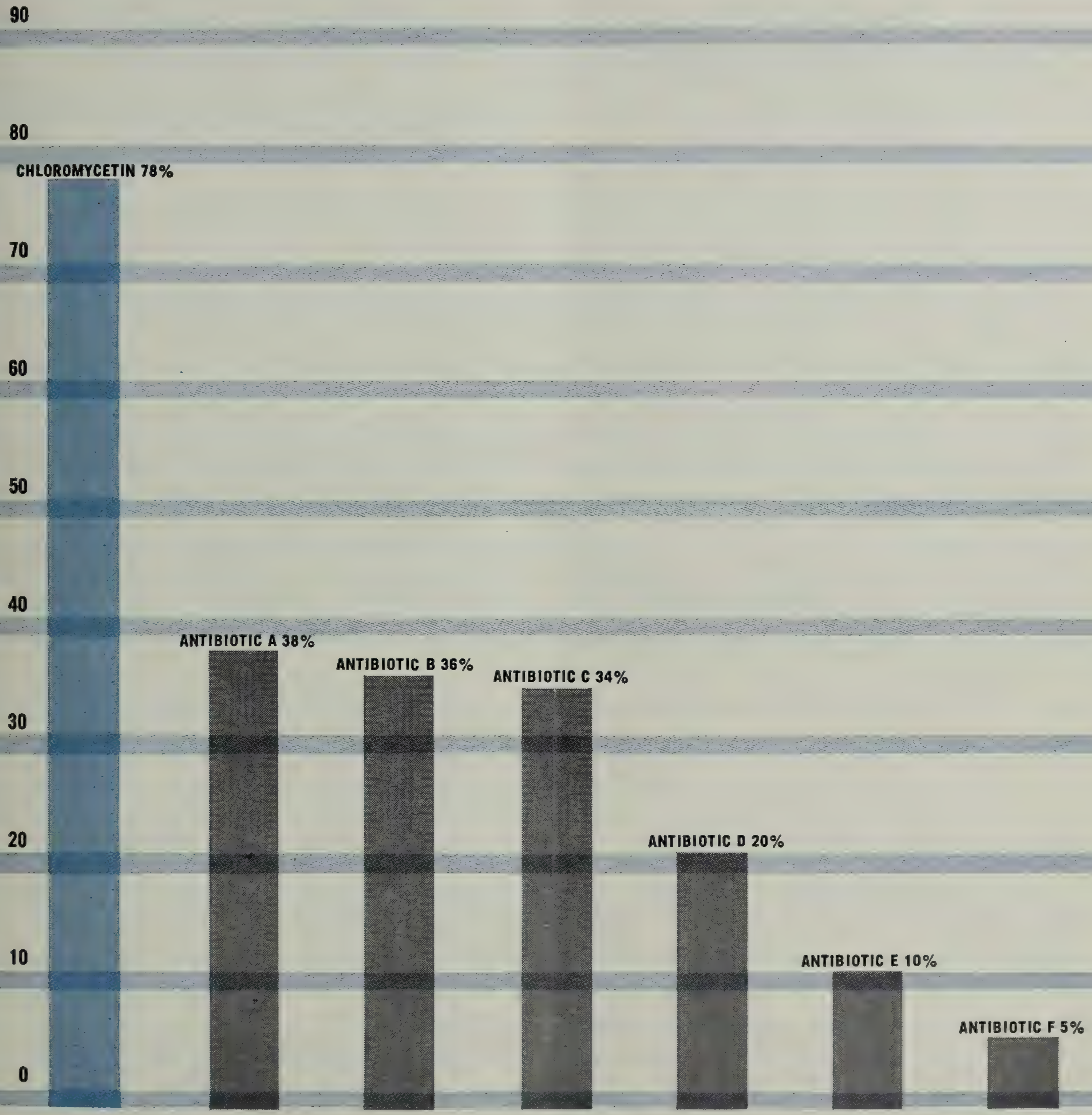
Lecture

Dr. Orvar Swenson, clinical professor of pediatric surgery at the Tufts University School of Medicine and post graduate division and surgeon-in-chief of the Boston Floating Hospital for Infants and Children will lecture at 8 o'clock the night of October 4 in Miller Hall, Firmin Desloge Hospital. Dr. Swenson's lecture is being sponsored by the department of surgery of the School of Medicine. His talk is entitled "Surgical Treatment of Congenital Megacolon."

UNIVERSITY OF MISSOURI

The medical school reported that most of its staff was on vacation and there was no news.

COMPARATIVE SENSITIVITY OF MIXED PROTEUS SPECIES TO CHLOROMYCETIN AND SIX OTHER WIDELY USED ANTIBIOTIC AGENTS*



*This graph is adapted from Waisbren and Strelitzer.[15] It represents *in vitro* data obtained with clinical material isolated between the years 1951 and 1956. Inhibitory concentrations, ranging from 3 to 25 mcg. per ml., were selected on the basis of usual clinical sensitivity.

Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Curiosa et Trivia

William B. McCunniff, M.D.

Our word "lens" is derived from the lentil bean, which also presents a biconvex surface.

A solution of peroxide (0.45 per cent) used as drinking water is reported as having caused disappearance of 50 to 60 per cent of adenocarcinoma in rats.

Malpractice awards aren't the only ones that have gone up. Personal injury traffic awards have increased from about $3,000 in 1940 to more than $11,000 in 1956.

Not to belabor the issue, but a recent issue of a very well-known and highly-esteemed medical journal still had patients scratching their pruritis!

Except for man and monkeys, all animals are color-blind.

The assets of American hospitals are almost 12 billion dollars—$12,000,000,000—that is!

About one-third of drivers involved in fatal accidents are under 25.

Capsule Clinics

I. A. Wien, M.D.

- There has been a decrease of one and a third years in the median age at first marriage since World War II; an increase in the number of births has also occurred over a six-year period of 2,560,000 in 1940 to 4,200,000 in 1956. Editorial: New England J. Med. **257** (July 4) 1957.
- It is doubtful that at present anyone can prove a claim to have cured any case of malignant lymphoma; a case of recurrence is reported after a 32 year remission. King, G. D.: Lahey Clin. Bull. **10** (Oct.-Dec.) 1956.
- Theodore Kocher, professor of surgery of the University of Berne for forty-five years, received the Nobel Prize in 1909 for his work, "physiology, pathology and surgery of the thyroid gland," and he is the only clinical surgeon ever to receive a Nobel award. Pemberton, J. deJ., and Black, B. M.: Cancer of the Thyroid, Am. Cancer Soc. 1954.

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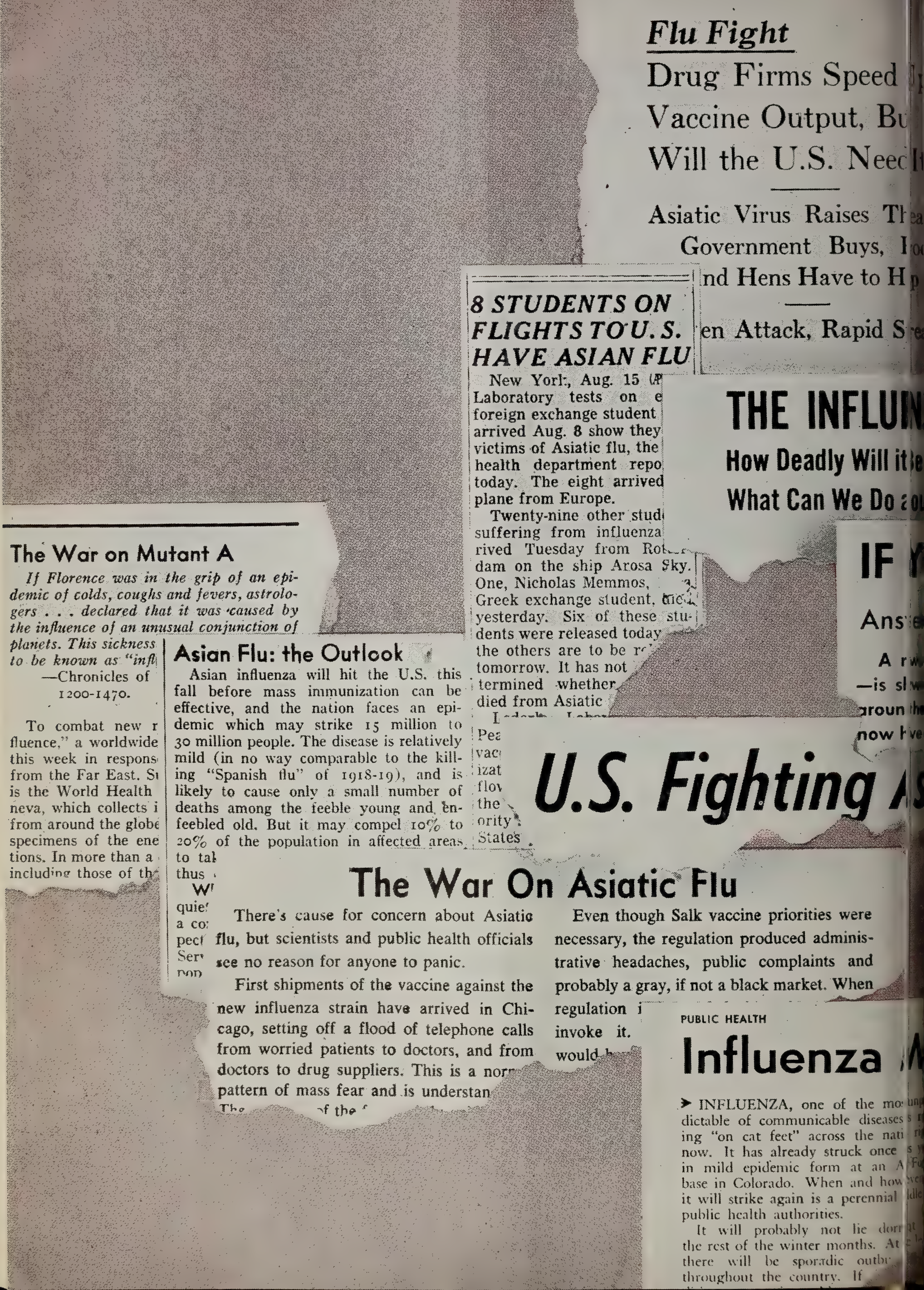

Flu Fight

Drug Firms Speed Up
Vaccine Output, Bu
Will the U.S. Need It

Asiatic Virus Raises Th
Government Buys, Foo
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en Attack, Rapid S e

8 STUDENTS ON FLIGHTS TO U. S. HAVE ASIAN FLU

New York, Aug. 15 (A
Laboratory tests on e
foreign exchange student
arrived Aug. 8 show they
victims of Asiatic flu, the
health department repo
today. The eight arrived
plane from Europe.

Twenty-nine other stud
suffering from influenza
rived Tuesday from Rot
dam on the ship Arosa Sky.
One, Nicholas Memmos,
Greek exchange student, die
yesterday. Six of these students were released today
the others are to be r
tomorrow. It has not
termined whether
died from Asiatic

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THE INFLUI

How Deadly Will it
What Can We Do

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U.S. Fighting A

The War on Mutant A

If Florence was in the grip of an epidemic of colds, coughs and fevers, astrologers . . . declared that it was caused by the influence of an unusual conjunction of planets. This sickness
to be known as "infl
—Chronicles of
1200-1470.

To combat new r
fluence," a worldwide
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from the Far East. S
is the World Health
neva, which collects i
from around the globe
specimens of the ene
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Asian Flu: the Outlook

Asian influenza will hit the U.S. this fall before mass immunization can be effective, and the nation faces an epidemic which may strike 15 million to 30 million people. The disease is relatively mild (in no way comparable to the killing "Spanish flu" of 1918-19), and is likely to cause only a small number of deaths among the feeble young and enfeebled old. But it may compel 10% to 20% of the population in affected areas to tal
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The War On Asiatic Flu

There's cause for concern about Asiatic flu, but scientists and public health officials see no reason for anyone to panic.

First shipments of the vaccine against the new influenza strain have arrived in Chicago, setting off a flood of telephone calls from worried patients to doctors, and from doctors to drug suppliers. This is a nor
pattern of mass fear and is understan
The f the

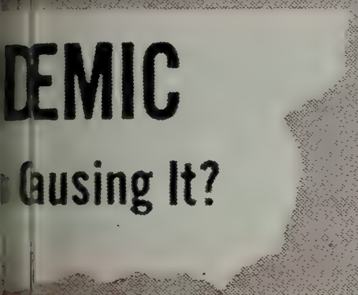
Even though Salk vaccine priorities were necessary, the regulation produced administrative headaches, public complaints and probably a gray, if not a black market. When regulation i
invoke it.
would

PUBLIC HEALTH

Influenza A

➤ INFLUENZA, one of the mo
dictable of communicable diseases
ing "on cat feet" across the nati
now. It has already struck once
in mild epidemic form at an A
base in Colorado. When and how
it will strike again is a perennial
public health authorities.

It will probably not lie dor
the rest of the winter months. At
there will be sporadic outb
throughout the country. If



DEMIC

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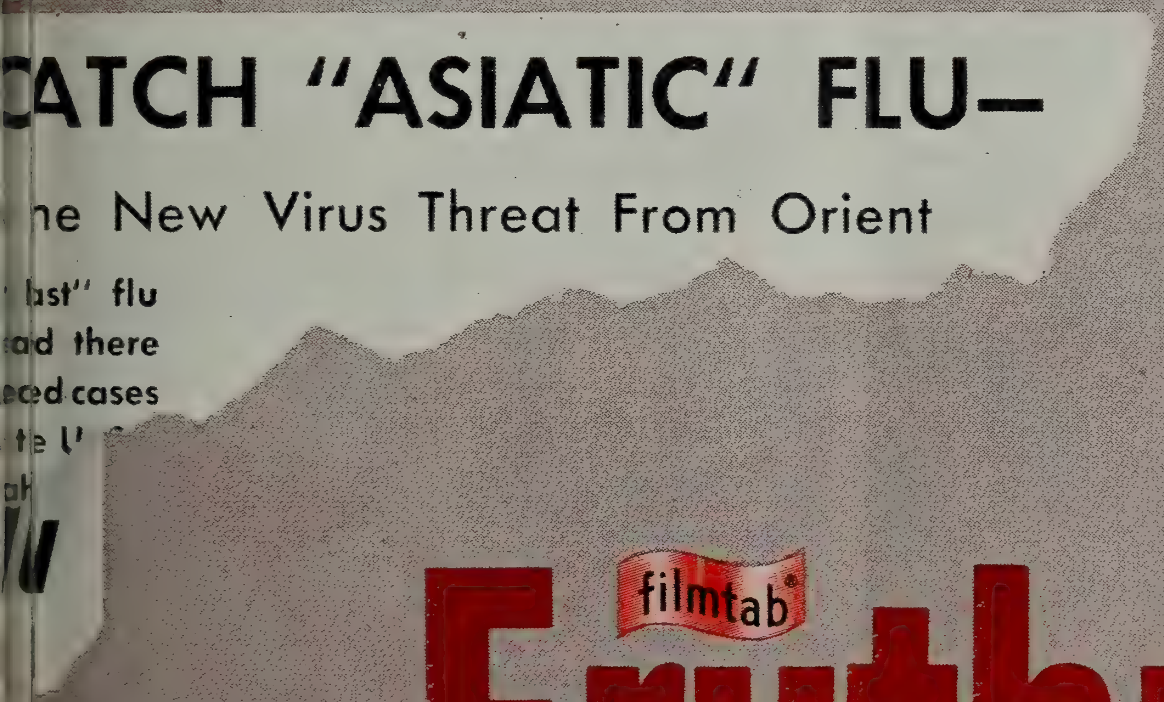

ATCH "ASIATIC" FLU—

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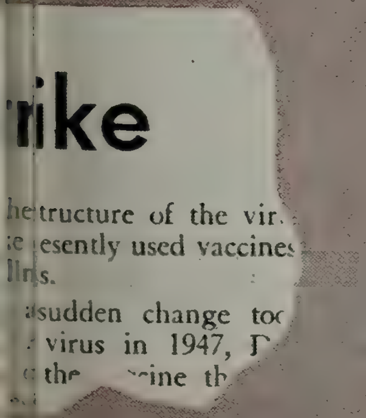

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to counteract complications from "ORIENTAL FLU"

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Erythrocin®

STEARATE (Erythromycin Stearate, Abbott)

effective against staph-, strep- and pneumococci

Abbott

®Filmtab—Film-sealed tablets, Abbott; pat. applied for.

Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

Dr. W. A. Clark of Jefferson City has been appointed penitentiary physician to succeed Dr. James C. Welch who resigned. Dr. Frederick A. Baldwin, who recently resigned as pathologist and bacteriologist of St. Louis, has assumed full charge of the Virchow Laboratory, 3700 Morgan Street, St. Louis.

The death of Dr. James H. Elliott, Councilor of the 27th District, created a vacancy which the president, Dr. R. E. Schlueter, has filled by appointing Dr. H. C. Shuttee of West Plains. Dr. Porter E. Williams of Bunceton has been elected superintendent of State Hospital No. 2 at St. Joseph to succeed Dr. E. H. Bullock. Dr. Bullock has been appointed Land Reclamation Commissioner.

The surgeon general of the Army has appointed Major Lewellen Sale of St. Louis to do a special study on care of cardiovascular diseases at Camp Wadsworth, Spartanburg, S. C. Major Oliver H. Campbell of St. Louis Chief is to do the same study at Camp McArthur, Waco, Tex.

The monthly medical journal *Pediatrics,* formerly edited by Dr. Wm. Edward Fitch, has been acquired by the *Medical Review of Reviews.* Dr. Fitch has been commissioned a major in the army. *Pediatrics* will no longer appear as a separate publication. It has been incorporated with the *Medical Review of Reviews* which will contain a separate department devoted to pediatrics beginning with January, 1918.

A supplementary contingent for Base Hospital No. 21, Washington University Base Hospital, left St. Louis September 27 under the command of Capt. Walter S. Thomas. The physicians accompanying the contingent were: Capts. Walter S. Thomas and Raymond M. Spivy, Lieuts. Carl W. Eberbach, W. W. Horst, Edwin P. Lehman, Herbert L. McNeil, Wm. H. Olmsted, J. Edgar Stewart and H. McClure Young. The supplementary personnel of the command includes, 35 nurses, 30 of them from St. Louis, and 47 enlisted men.

The fall meeting of the Southwest Missouri Medical Society will be held in Springfield November 15 and 16. The sessions will be held in the assembly room of the Physicians' Club in the Woodruff Building.

TWENTY-FIVE YEARS AGO

Dr. M. O. Biggs, Louisiana, Mo., one of our most loyal members and superintendent of State Hospital No. 1 at Fulton for more than 13 years was killed in a highway accident a short distance west of Louisiana on October 23.

The Nodaway County Medical Society will celebrate its 60th anniversary November 11. Drs. C. T. Bell of Maryville and C. W. Kirk of Hopkins, are in charge of the program.

The Missouri Methodist Hospital, St. Joseph, cared for 4,489 patients during its last fiscal year which ended August 31. The net earnings of the hospital amounted to $16,577, according to Dr. O. J. Carder, superintendent. Total cost of operation for the year was $179,103, of which $35,989 went for charity and part-pay patients.

The *Bulletin* of the American Society for the Control of Cancer was made the official organ of that society by the board of directors at a meeting October 8. The former relationship between the society and the *American Journal of Cancer* was discontinued.

A portrait of the late Dr. C. D. McDonald, first president of the Jackson County Medical Society, was presented to the Society September 27 by Mrs. E. F. Parks, Dr. McDonald's daughter. The portrait was accepted for the society by Dr. Albert J. Welch, president.

A joint meeting of the Jackson County (Missouri) and the Wyandotte County (Kansas) medical societies, the Kansas City Academy of Medicine and the Kansas City Urological Society was held in the assembly hall of the Medical Arts building in Kansas City October 29. Dr. Hugh H. Young, Baltimore, clinical professor of urology of the Johns Hopkins Medical School addressed the meeting on "Surgery of the Prostate."

During the World War I the well cultivated fields in the north of France were found to teem with the bacillus of tetanus, whose ravages among the wounded would have been appallingly heavy but for the timely use of Kitasato's antitoxin. It was available, thanks to the researches of Shibasaburo many years earlier. The story of Kitasato, a pioneer of medicine and a microbe hunter, is told by Dr. Claude Lillingston in the September issue of *Hygeia.* The regular business meeting of the Buchanan County Medical Society was called to order by the president, Dr. A. E. Burgher of St. Joseph, at the Missouri Methodist Hospital September 21.

(Continued on page 1106)

"Eighty-seven patients with various infections of the skin were treated over a period of six weeks with [Signemycin]. Excellent or good results were achieved in sixty-seven, including eleven of twenty-two patients refractory to other antibiotics."
Lewis, H. H.; Frumess, G. M., and Henschel, E. J.: Rocky Mountain M. J. *54*:806 (Aug.) 1957.

"Results of treatment with oleandomycin-tetracycline of 50 infections [mostly respiratory] due to resistant organisms and 40 infections [respiratory, skin, urinary infections] due to sensitive organisms are very encouraging. In some of these patients, [Signemycin] was lifesaving, and in others surgery was made unnecessary. This confirms other reports."
Shubin, H.: Antibiotic Med. & Clin. Therapy *4*:174 (March) 1957.

Based on case reports documented by independent investigators in 26 countries abroad, the clinical response obtained with Signemycin in 1404 patients with a wide variety of infections was successful in 1329 patients; in 13 cases only was it necessary to discontinue therapy because of side effects.
Report on 1404 Cases Treated with Signemycin: Medical Department, Pfizer International. Available on request.

In 50 nonselected patients, Signemycin "...appears to be effective in the treatment of most general surgical infections, including virulent staphylococcus aureus infections. In some cases these infections had been clinically resistant to other antibiotics. The drug is apparently well tolerated."
Levi, W. M., and Kredel, F. E.: J. South Carolina M. A. *53*:178 (May) 1957.

Of 50 patients with various infectious processes, 26 had not responded to previous antibiotic therapy. With Signemycin "Ninety-six per cent of the mixed infections were clinically controlled. . . . and in none of the cases was there any reason to discontinue the drug."
Winton, S. S., and Chesrow, E.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 55.

Signemycin in 79 patients with severe soft tissue infections: "The average response of these cases was excellent and inflammatory symptoms subsided with almost uniform rapidity....The magnitude and incidence of surgical intervention was reduced....Side reactions were minimal. . . ."
LaCaille, R. A., and Prigot, A.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 67.

Five groups of patients (total 211) with acne were treated with one of five antibiotic agents, including Signemycin (55 cases). "The results were evaluated taking into consideration the usual response to such conservative conventional therapy and the rapidity of response." In 8 weeks, Signemycin rapidly attained and maintained the highest percentage of efficacy of antibiotic agents tried.
Frank, L., and Stritzler, C.: Antibiotic Med. & Clin. Therapy *4*:419 (July) 1957.

In the treatment of 78 patients with tropical infections, some complicated by multiple bacterial contamination or present for years, Signemycin was found to be "...an exceptionally effective agent," requiring smaller doses and less extended periods of therapy than with the tetracyclines alone, and "caused no notable toxic reactions."
Loughlin, E. H., and Mullin, W. G.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 63.

MYCIN† **V**

OLEANDOMYCIN TETRACYCLINE-PHOSPHATE BUFFERED

PROVED CLINICALLY EFFECTIVE

When specifying
buffered Signemycin V
be sure to write the
V on your Rx

nark, oleandomycin tetracycline
†Trademark

WASHINGTON

An active year in health legislation is predicted for the second session of Congress that starts in January.

Rep. John Fogarty, Rhode Island Democrat, who makes the prediction, is chairman of the House appropriations subcommittee on the Health, Education and Welfare Department budget.

One of the subjects high on his list for action is federal construction aid to medical schools.

Rep. Fogarty made no mention of the labor backed bill for free hospitalization for the aged receiving social security payments. (The President's Page on page 1060, discusses this bill.)

Mr. Fogarty believes the Hill-Burton hospital program can't continue indefinitely within the limits of its present pattern of operation, but should be used to meet future health needs. The American Hospital Association is urging a 5-year extension of the present law that is due to expire in June, 1959.

Undoubtedly, legislation to continue it another five years will be introduced next session. The program now is in its 12th year.

The A.H.A. also is asking for low-interest loans for new construction, modernization and repairs, and matching funds for renovation and modernization.

At a recent Council meeting of the Missouri State Medical Association, Dr. Henry M. Hardwicke, acting director of the Missouri Division of Health, stated that he believed a factual analysis should be made of the present allocation of Hill-Burton funds in Missouri. He is concerned whether more of it should be assigned to erection of institutions for chronically-ill rather than acutely-ill persons. The Council agreed that the MSMA should go on record as favoring such a study of the law in Missouri.

Mr. Fogarty also made another prediction in a speech to the recent A.H.A. convention, according to the A.M.A. Washington bureau.

He said that within the next 25 years, hospitals will be providing at least as much preventive service as curative service.

Hospitals, "in fact, are moving closer each moment to the day when hospitals will be the focal point of health services for all of us throughout our entire lives."

Mr. Fogarty, in commenting on the role of government in health, said:

"It is now generally accepted that the health of our people is a major national resource and that the government, therefore, has a direct responsibility for the health of everyone. . . ."

The Pan American Sanitary Organization reported recently at its annual meeting in Washington that malaria should be eradicated within five years in most member countries.

The ministers and directors of public health in the 21 American republics and territories making up the organization have approved a 3 million dollar budget for the next year, covering some 160 health projects.

The new budget is a $600,000 increase over this year's budget. The United States will pay about 2 million of it. In addition to the 3 million, the World Health Organization plans an allocation of $1,558,502. United Nations technical assistance funds will add another $1,275,308.

Physicians operating under Medicare will not be authorized to give Asian flu vaccinations at government expense.

Dependents may, however, receive free vaccinations at military hospitals and clinics. In explaining the policy, the Army's Office of Dependents' Medical Care says:

"Immunization for this disease (influenza) is a procedure normally administered on an outpatient basis. Consequently, dependents, including those receiving obstetrical and maternity care, will not be eligible to receive influenza vaccine at government expense, except as may be provided for in medical facilities of the uniformed services."

The statement emphasizes:

"A recent resolution of the State and Territorial Health Officers indicates that immunization for infants under three (3) months of age is not recommended."

The Army explained the policy on influenza shots was in accordance with the general provisions of the Medicare program. If hospitalization is not required, outpatient care by civilian physicians will be the responsibility of the patient. Where hospitalization is required, all the provisions of the program apply as for other medical cases.

The number of serious reactions to penicillin has been increasing each year, Dr. Henry Welch, Chief of the United States Food and Drug Administration's Division of Antibiotics, said recently in a report before the 5th Annual Symposium on Antibiotics.

(Continued on page 1104)

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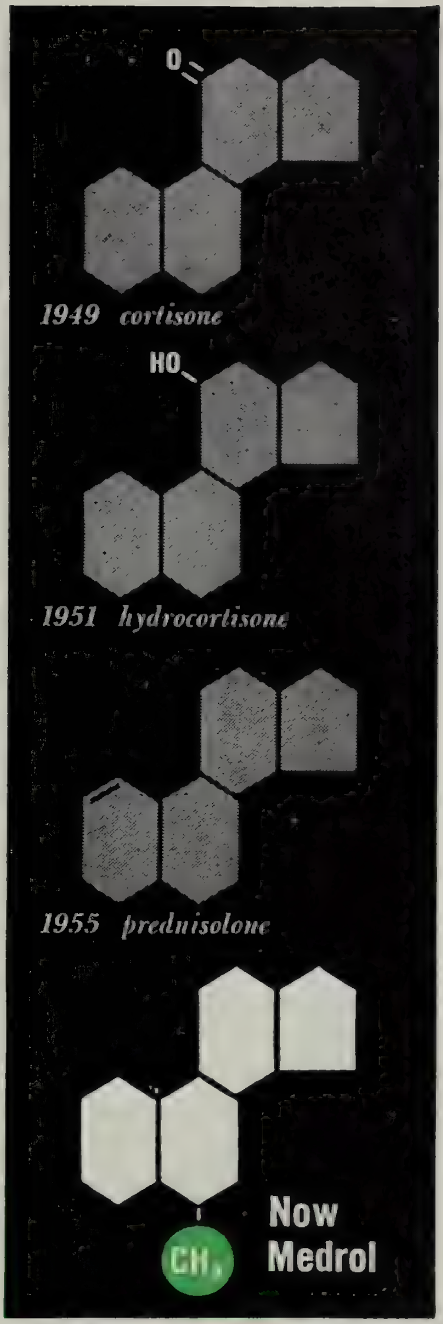
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Woman's Auxiliary

Mrs. Armand D. *(Ruth Anne)* Fries, *President*

In a previous issue we told of the plans and program of our fall board meeting which was held September 20-21 in Excelsior Springs. From the many favorable comments and the interest evidenced by all present, this was one of the very nicest and most interesting meetings Missouri State Auxiliary has ever held.

To the Clay County Auxiliary, Mrs. J. B. Withrow, president; Mrs. M. W. Chastain, meeting chairman and Mrs. J. E. McCormick, co-chairman, go our sincere appreciation and thanks for their efforts in making our visit such a delightful, interesting and profitable one. Because of necessitated changes in dates originally planned for this meeting, many of our members were unable to attend—but certainly anyone not attending was the loser.

Our meeting was called to order promptly at 1.45 o'clock and Mrs. Hy. C. Bauman, president-elect gave a beautiful invocation. She was followed by the pledge of loyalty, led by Mrs. Stanley Petersen. The guests were welcomed and the tightly scheduled program began at 2 o'clock sharp.

"Mental Health" was the subject of our first panel with Dr. Louis H. Forman of Kansas City, a leading psychiatrist and assistant clinical professor of psychiatry at the Kansas University Medical Center, as speaker. He was introduced by Mrs. R. B. Bristow, Buchanan County, state chairman of the medical health committee.

Dr. Forman spoke of the importance of the mental health problem. He stressed the great benefit of the new mental health bill that places the state's work with the mentally ill on a completely professional basis. He also gave valuable information to our Auxiliary for mental health program planning.

Mrs. Maxmillian Weitman, chairman of our American Medical Education Foundation committee introduced our next speaker, Dr. James P. Murphy, of St. Louis, assistant professor of clinical medicine at St. Louis University School of Medicine and chairman of the state AMEF committee. Dr. Murphy discussed the needs of the 82 medical schools throughout our nation and the growing cost of medical education. He complimented the Auxiliary on its fine financial contribution this year, more than double the amount subscribed and given last year. AMEF is one of the priority projects of the National Auxiliary this year, and again many novel ways of fund-raising are to be used.

We were honored to have Mrs. Chas. H. Flynn, past president of the Iowa State Auxiliary and now program chairman of the National Auxiliary, as our guest. She discussed and answered questions pertaining to the auxiliary program, which this year is geared to the theme "Health Is a Joint Endeavor."

Mrs. Emily Beigel, R.N., director of health service of the North Kansas City schools, spoke on health careers recruitment and Future Nurses Clubs. Her topic was "The Time Is Now." She very ably pointed out the need for auxiliaries to expand their recruitment program and take in other careers in the field of health services where trained personnel is needed very badly.

Mr. William Logan, a member of the MSMA staff, who formerly covered the Missouri Legislature for the *Kansas City Star,* was the speaker. He was introduced by Mrs. T. Reed Maxson of Johnson County, chairman of the legislation committee. Mr. Logan gave a most interesting and enlightening talk on legislation as it pertains to our husbands' profession. He also distributed a list of "DO'S and DON'TS" when writing your legislator.

We had a delightful social hour before the banquet Friday night. Clay County may well be proud of having Mrs. Bea Johnson, Kansas City television personality, as their speaker for the evening. Mrs. Johnson recently returned from a trip to the Soviet.

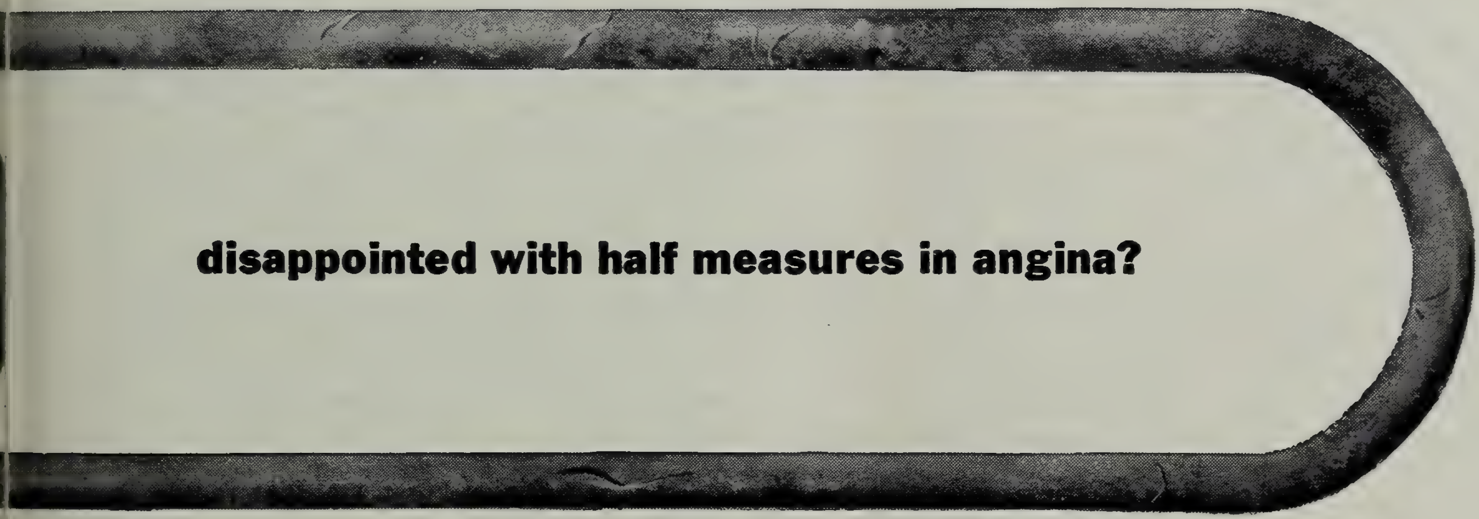
She told how long she worked to set her trip up. She went with a group of women from newspapers and radio and television stations all over the United States. She was the first American ever to be granted an interview with Bulganin at the Kremlin. She brought clearly to everyone's attention, how wonderful it is to be an American and live as we wish to do.

Saturday morning we held our business meeting, followed by brief reports of the officers and board members.

Mrs. Robert Dunchee of Maryville, chairman of the civil defense committee, talked briefly on civil defense. She showed us a typed card which she suggested be hung in a prominent place. The card gave information needed in case of an emergency.

Our final speaker was Miss Jean Mullane of the Kansas City Safety Council. We felt that this was a very fitting time to hear this woman's message since it was time to start our homeward journey.

Mrs. Hy. B. Bauman and I will have attended a Conference of Presidents and Presidents-Elect in Chicago by the the time you receive this. Since becoming the president I have travelled by bus, motor car, and plane and train, visiting and enjoying the hospitality of many of our fine Auxiliaries throughout our State. With all the duties this job of being president entails, the old adage, "A woman's work is never done," very accurately describes my present status. I know it also holds true for every Auxiliary member who is loyal and interested in the health and welfare of her community.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"Moonlighting" Not for Romance Any More

They used to call it multiple jobholding, meaning a full-time worker holding a second job in his off-hours. Now this practice is becoming so common—and so much a problem—that it has earned a nickname: "moonlighting."

Although economists, sociologist and personnel directors have been concerned for some time, it is only recently that moonlighting has received an airing in the press.

The problem concerns the primary employer, the labor unions, and the health and welfare of the "moonlighter" himself and his family.

The primary employer feels that the worker who takes a second job at night cannot be as efficient as he would otherwise.

The unions feel that moonlighting makes it harder to negotiate higher union wages. In an editorial, *The Machinist,* weekly newspaper of the International Association of Machinists, says: "It stands to reason, if a non-union employer can buy a moonlighter's skill at less than union rates, competition will soon move the work out of the union shop and we'll all wind up with nothing but moonlight.

"Moonlighting is also making it harder and harder for layed-off union members to find new jobs. Working for less in competition with a fair employer paying union rates is a serious violation of the basic principle on which the union is built."

From the standpoint of health and recreation, the practice defeats the purpose of a shorter work week. Sociologists and economists place the blame partly on installment-plan buying. When a family gets over its head on payments, a second job in those extra off-hours frequently follows. Investigation has shown that moonlighting often starts as a temporary measure, but becomes permanent when the family gets used to having the extra income.

Government is also taking an interest in the problem. The Labor Department's statistics and those compiled by the Bureau of the Census give an indication of what is happening. The Labor Department counts jobs, whereas the Census Bureau counts jobholders. According to the Labor Department, there were 52,836,005 "employes in non-agricultural establishments" in August 1957—meaning there were that many jobs, not jobholders.

The Census Bureau estimates that one in every 18 employed persons is a moonlighter—or 3,700,000 workers—based on a survey made in July 1956. This is a sharp increase over the 1950 estimate, which found only about 1,800,000 multiple jobholders, or one in every 33 employed persons.

In other words, 5.5 per cent of all employed persons are moonlighters, compared to 3 per cent in 1950. The Bureau says the ratio is higher among farm workers. Among non-farm wage and salary workers it has reached 4.9 per cent. Among all married men, the percentage is 7.5 per cent.

The Census Bureau made a further survey last July and results will be available in another month or so. One Census official said, "We want to know whether the multiple jobholder has a wife who works, for one thing. That is, does a man now feel he has to have his wife in the labor force or else get an extra job himself?"

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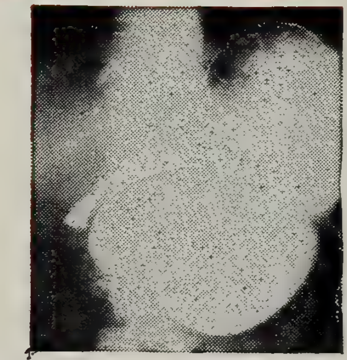

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Vol. 54 **November, 1957** **Number 11**

Small Bowel Volvulus

GRAFTON A. SMITH, M.D., AND JOHN F. PERRY, JR., M.D., *Columbia*

VOLVULUS OF THE small bowel, a relatively infrequent cause of intestinal obstruction, is important because of the high mortality rate accompanying it.[3, 4, 5, 6, 8] During the decade ending September 1, 1953, our clinical material[9] showed that this type of strangulating obstruction had been responsible for the highest death rate among lesions causing small bowel obstruction in adults. Also, it is possible that volvulus may become a more frequently observed type of intestinal obstruction as the scope of abdominal surgery increases, for it usually occurs early or later after abdominal operations. For these reasons, and because recent, more reliable radiographic technics are available for the diagnosis of volvulus, a report of 39 patients with this condition seen at the University of Minnesota Hospitals between 1942 and 1956 seems justified.

CLINICAL MATERIAL

Etiology—Volvulus of the small intestine occurred in 31 patients following previous operations; in seven patients congenital malformations caused the obstruction and, in one, inflammatory adhesions were responsible for the twist. Although present in all 31 patients previously operated upon, postoperative adhesions were directly responsible for the volvulus in only 18 instances. In the remainder torsion had occurred around an external stoma such as an ileostomy or colostomy, around an anastomosis, through a rent in the mesentery, or around a drain (T-tube). In five patients no point of fixation could be found. Congenital malformations leading to volvulus were malrotation, Meckel's diverticulum and congenital bands.

Age—Patients whose volvulus occurred following a previous operation or abdominal inflammatory disease ranged in age from two to eighty years. In all those with lesions caused by congenital abnormalities, volvulus occurred before 4 years of age. In considering the entire group, patients were about equally divided in three age groups: those less than 5 years, those 5 to 60 years and those more than 60 years of age. Age was therefore of little assistance as an aid in arriving at the diagnosis.

Clinical Manifestations—A history of a previous episode of intestinal obstruction was obtained rather frequently. Sixty per cent of the entire group had had symptoms in the past compatible with the diagnosis of intestinal obstruction. Three of seven patients with volvulus due to congenital anomalies and 20 of 24 patients with late postoperative volvulus had had episodes of vomiting and abdominal colicky pain of varying severity prior to their present illness. In some instances the condition had been diagnosed and treated as intestinal obstruction; in others it had subsided spontaneously. In the remaining eight patients volvulus occurred early after operation or following an acute abdominal inflammatory disease. These had suffered no antecedent symptoms of obstruction.

The clinical manifestations of the acute episode of volvulus were usually severe colicky pain, vomiting, abdominal tenderness and distension. Ninety-five per cent of patients old enough to give a reliable history complained of severe colicky abdominal pain. Vomiting was universally present; abdominal distension was found in 82 per cent of patients, and abdominal tenderness occurred in 92 per cent. Less frequent signs were abdominal rigidity (43 per cent), rebound tenderness (26 per cent), a palpable mass (13 per cent), and bloody stools (10 per cent). The pulse rate was usually elevated to a greater degree in patients with gangrene, but was of no diagnostic significance in the individual case. Leukocytosis was usually present but again was not a wholly reliable sign. The white blood count averaged

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Department of Surgery, University of Missouri, Columbia.
Department of Surgery, University of Minnesota, Minneapolis.

11,300 for these 39 patients. Average white blood counts were 12,400 and 10,600 in the gangrenous and non-gangrenous groups respectively.

Routine radiographic examination of the abdomen was diagnostic of intestinal obstruction in 33 of the 39 patients. Radiographic signs of strangulation or volvulus, demonstrated by one method or another, were found in 25 patients. These included the "coffee bean" or "pseudotumor" sign[10] in 11 patients (fig. 1). Severe distention of stomach and duodenum in the presence of an otherwise gasless abdomen was present in five patients and was suggestive of a strangulating obstruction of the upper small bowel. A barium enema demonstrated malrotation of the colon in three infants. In another, malrotation of the colon was combined with duodenal obstruction and distended small bowel loops, a combination of signs indicative of small bowel volvulus in infants[1, 2] (fig. 2). A small bowel enema identified the site of volvulus in four older patients.

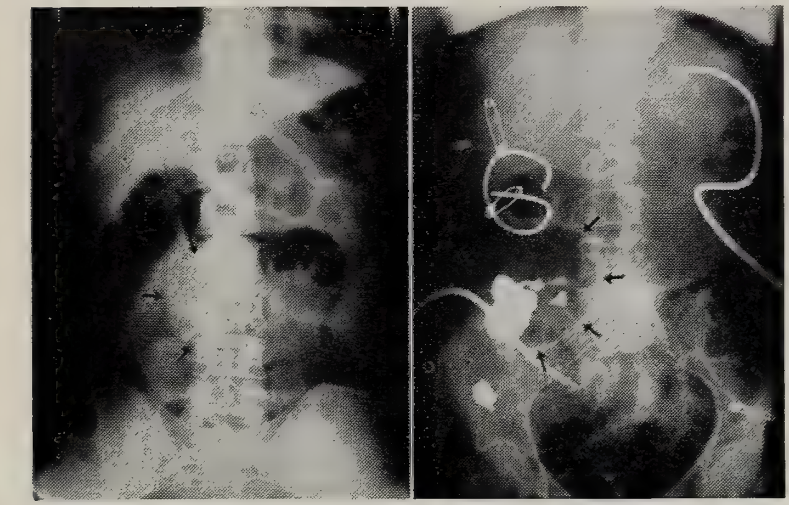

Fig. 1. A. The "Pseudo-tumor sign," a shadow highly suggestive of strangulation obstruction or volvulus of the small bowel. B. The "Coffee-bean sign," a finding indicative of a strangulation obstruction or volvulus. Barium enema through an ileostomy demonstrates the site of occlusion.

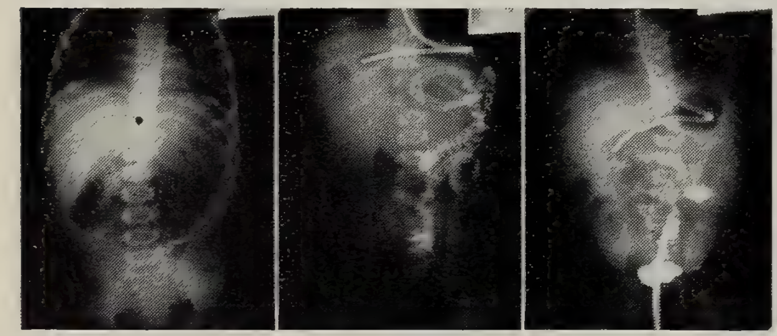

Fig. 2. A. Distension of the stomach and duodenum during infancy, a finding suggestive of volvulus. B. Malrotation of the bowel as shown by barium enema in a patient with small bowel volvulus. C. An x-ray of the abdomen which is diagnostic of small bowel volvulus because: (a) there is evidence of obstruction at the third portion of the duodenum; (b) the colon is situated on the left side of the abdomen; (c) multiple arcades (inverted U's) are shown within the right lower quadrant of the abdomen.

More recently we have utilized pneumoperitoneography to demonstrate fluid filled loops in patients with symptoms and signs suggestive of strangulation obstruction and in some patients with signs of an acute abdomen whose clinical picture and radiographic findings are not clear cut.

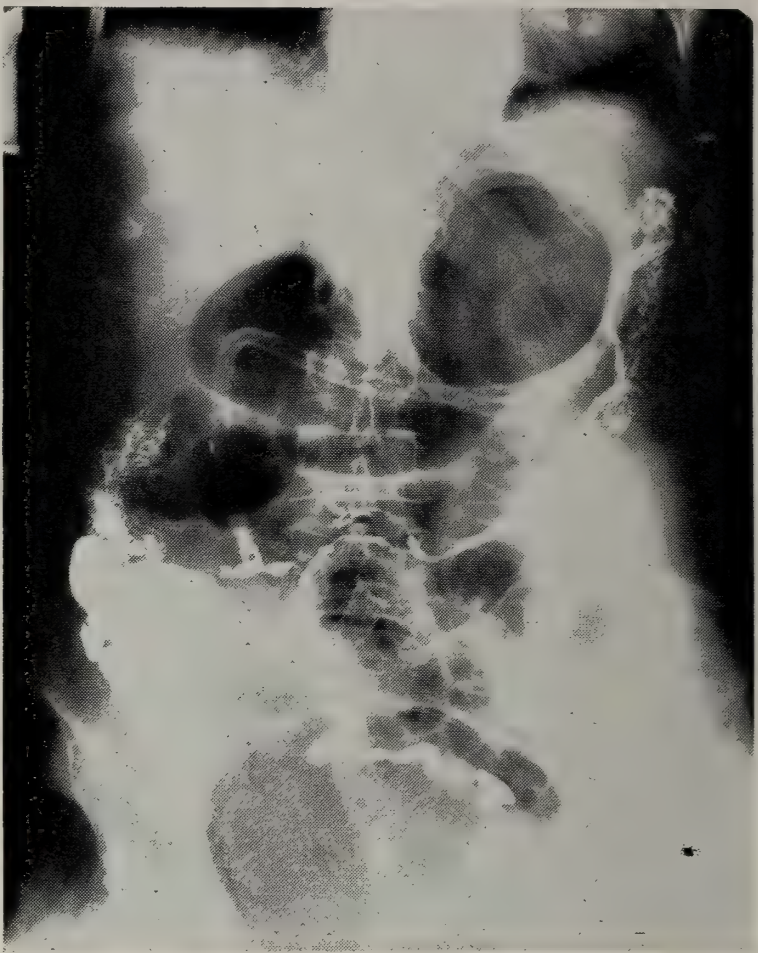

Fig. 3. A 73-year-old female was admitted with 72 hour history of abdominal distention, colicky pain and vomiting. No abdominal tenderness or rigidity were present. The plain supine film shows a gasless area or mass in the lower abdomen, the "pseudo tumor" sign.

Figures 3 and 4 show the radiographic appearance of the scout film and the pneumoperitoneogram of a patient with small bowel volvulus. This technique was utilized four times in the present series of patients. In three, its use definitely confirmed the presence of a strangulated loop, although other roentgen signs had been only suggestive of strangulation and the clinical picture had not been decisive. In the fourth patient, a strangulated loop was demonstrated by pneumoperitoneography. Here, the scout abdominal films had been nondiagnostic.

In all, strangulation obstruction was recognized by clinical and radiographic means in 20 of these 39 patients. In three other patients, moribund at the time of hospital admission, it was obvious that an acute abdominal catastrophe had occurred. Of the remaining 16 patients, 12 were diagnosed as having intestinal obstruction while the other four were either incorrectly diagnosed or the true condition was not suspected. A preoperative diagnosis of small bowel volvulus was made only 9 times (23.3 per cent).

Management—Table 1 shows the effect of de-

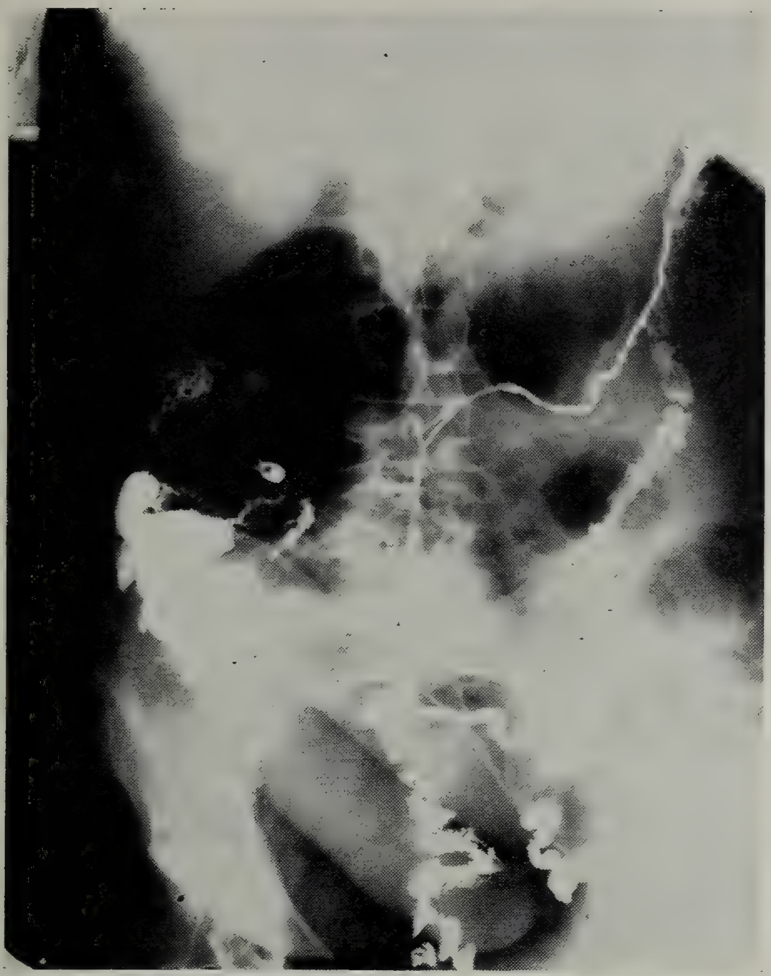

Fig. 4. The pneumoperitoneogram made after intraperitoneal injection of 600 ml. of air shows this to consist of enlarged fluid filled loops of small bowel. At operation small bowel volvulus was found. Recovery was uneventful.

TABLE 1

DURATION OF SYMPTOMS AND MORTALITY RATE IN PATIENTS WITH GANGRENOUS AND NONGANGRENOUS VOLVULUS OF SMALL BOWEL
(39 Patients)

	Gangrenous		*Nongangrenous*				
Duration of Symptoms	Cases	Deaths	Cases	Deaths	*All Cases*	*All Deaths*	*Mortality Rate*
24 hours or less	5	3	6	0	11	3	27.3%
Over 24 hours .	14	9	14	2	28	11	39.3%
Total	19	12	20	2	39	14	35.9%

layed diagnosis and of gangrene on the mortality rate due to volvulus. It is obvious that the best results would be obtained in patients diagnosed and surgically treated before gangrene occurs. Of the entire group, four patients developed gangrenous bowel due to delay during hospital observation. One of these was treated for acute pancreatitis; the remainder had developed volvulus in the early postoperative period following abdominal operation—a situation wherein the diagnosis of strangulation obstruction on clinical grounds may be difficult. Six other patients died following treatment of obstruction with gangrenous bowel shortly after admission, and two with gangrene were already moribund at the time of admission. In this group, therefore, delay before admission may have contributed to or led to the death of eight patients; four deaths could be attributed to delay or improper diagnosis during hospitalization; while the remaining two who died were patients whose strangulation obstruction had not progressed to gangrene. The causes of death are given in table 2.

TABLE 2

CAUSES OF DEATH AMONG PATIENTS WITH SMALL BOWEL VOLVULUS

A. Surgically Treated Patients	
Extensive nonresectable gangrene	3
Ineffective treatment	1
Postoperative peritonitis	1
Cardiac arrest	1
Cerebrovascular accident	2
B. Patients Not Operated Upon	
Moribund on admission	2
Unrecognized volvulus	4
Total Deaths, all causes	14

In all, 33 of 39 patients were operated upon. The results of surgical treatment are indicated in table 3. The greater mortality rate attending resection than that with detorsion alone is probably more indicative of the state of viability of the bowel rather than the operative procedure utilized. Of 29 patients whose strangulating lesions could be adequately treated by resection or detorsion, the mortality rate was 13.8 per cent.

TABLE 3

THE RESULTS OF OPERATIVE TREATMENT IN PATIENTS WITH SMALL BOWEL VOLVULUS
(33 Patients)

Treatment	*Cases*	*Deaths*	*Mortality Rate*
Reduction	17	1	5.9%
Resection	12	3	25.0%
Not Resectable (a)	3	3	100.0%
Skin Incision Only (b)	1	1	100.0%
Total	33	8	24.2%
Patients afforded relief of volvulus	29	4	13.8%

(a) 3 patients with entire small bowel not viable.
(b) Patient died of cardiac arrest.

When mortality rates are studied by three successive time periods (table 4), it is apparent that there has been definite improvement in the results of treatment of this condition. The lower mortality rate in the last four-year period is probably the result of two factors. The first of these is an increased awareness of the gravity of this problem

TABLE 4

MORTALITY RATE OF SMALL BOWEL VOLVULUS DURING THREE TIME PERIODS

	All Patients			*Patients Operated Upon*	
Time Period	No.	No. With Gangrene	Death Rate	No.	Death Rate
1942-1946	6	4	4 (66.6%)	3	1 (33.3%)
1947-1951	17	7	7 (41.2%)	15	5 (33.3%)
1952-1956	16	8	3 (18.7%)	15	2 (13.3%)
Total	39	19	14	33	8

by all members of the surgical staff and, consequently, more aggressive attempts at diagnosis in acute abdominal conditions which are not clearly defined. Second, pneumoperitoneography is now utilized frequently in this clinic to demonstrate the presence or absence of strangulated loops in patients with symptoms of acute abdominal disease.

COMMENTS

The mortality rate of small bowel volvulus, being over 30 per cent during the past decade, can be improved only with earlier surgical intervention. The deaths attend the occurrence of gangrene. Nonviable bowel was found in 48.2 per cent of our patients and this group accounted for 86 per cent of all deaths. These were the results of delayed diagnosis and treatment. During the last four years of this study, special radiographic technics and, recently, pneumoperitoneography as diagnostic aids have prompted earlier surgical management. The results have been much better (mortality rate of 13.3 per cent). This improvement can be achieved only if strangulation obstructions are suspected frequently and these special efforts made to recognize the presence of compromised segments of bowel.

In addition, it is extremely important to recognize any signs of strangulation in all patients with obstruction of the small intestine in order to manage volvulus properly. Abdominal tenderness, muscular spasm, rebound tenderness, an abdominal mass, bloody stools, and especially x-ray evidence of a closed-loop obstruction must be carefully sought for in every patient. Actually, upon finding any one of these signs, the patient must be operated upon immediately if the mortality rate of volvulus is to be reduced.

The recognition of volvulus is particularly difficult in the early postoperative period. The specific site of operative endeavor should be suspected first as the cause of abdominal disorders following surgery. A small bowel enema, using a thin mixture of barium, may be helpful; but the injection of air into the peritoneal cavity in these patients can supply information of diagnostic value when plain abdominal films show only minimal amounts of gas within the twisted, fluid-filled loops of bowel. In the face of advanced gaseous distension, the suggestion of limiting suction to a 12 hour trial when there has been ineffective progression in the relief of distention seems a rational one in postoperative patients.

Finally, a barium enema is well worth doing in infants with small bowel obstruction. This procedure affords a rapid method for determining the existence of malrotation of the bowel, a finding, when present, that is highly suggestive of volvulus.

SUMMARY

Thirty-nine patients with acute volvulus of the small intestine, all of whom were seen at the University of Minnesota Hospitals between January 1, 1942, and May 1, 1956, are reviewed.

In 79 per cent of the patients the episode of volvulus followed abdominal surgery at various intervals of time, while congenital anomalies caused volvulus in 21 per cent of these patients. Adhesions, which occurred in 18 patients, were the most common cause.

Formerly the prognosis was grave, but early recognition of strangulating obstructions and prompt treatment offered by the diagnostic aid of special radiographic technics has reduced the surgical mortality rate at this hospital to 13.3 per cent in a more recent period.

BIBLIOGRAPHY

1. Frimann-Dahl, Johan Cappelen: Roentgen Examination in Acute Abdominal Disease, Springfield, Illinois; Charles C Thomas, 1951.
2. Gross, Robert E.: The Surgery of Infancy and Childhood, Philadelphia; W. B. Saunders Company, 1953.
3. Leonard, E. D., and Derow, S.: Volvulus, a Study of Twenty-two Cases, New England J. Med. **218**:388, 1938.
4. McKechnie, R. E., and Priestley, J. T.: Volvulus of Small Intestine, a Report of Thirty-seven Cases, Am. J. Surg. **34**:286, 1936.
5. Mortez, W. H., and Morton, J. J.: Acute Volvulus of Small Intestine; Analysis of Thirty-six Cases, Ann. Surg. **132**:899, 1950.
6. Ojha, D. J.: Volvulus of the Small Intestine, Indian J. Surg. **12**:42, 1950.
7. Perry, John F., Jr.; Von Drashek, Stanley C., and Wangensteen, Owen H.: Studies in the Recognition of Strangulating Intestinal Obstructions With Special Reference to the Value of Pneumoperitoneography, Surgery **39**:725-735, 1956.
8. Ripstein, C. B., and Miller, G. G.: Volvulus of the Small Intestine, Surgery **27**:506, 1950.
9. Smith, G. A.; Perry, J. F., Jr., and Yonehiro, E. G.: Mechanical Intestinal Obstruction: A Study of 1,252 Cases, Surg. Gyn. & Obst. **100**:651, 1955.
10. Wangensteen, Owen H.: Intestinal Obstructions, Springfield, Illinois; Charles C Thomas, 1955.

CONFERENCE ON PREGNANCY NUTRITION

Nutrition in pregnancy was discussed by 175 physicians, nurses, social workers and dietitians at a conference sponsored by the American Medical Association's Council on Foods and Nutrition, October 11, at Columbia.

The purpose of the conference was to show participants what they could do to help make childbearing less hazardous and babies healthier.

Among the topics discussed were the actual food habits of pregnant women: metabolic and biochemical changes in pregnancy; teen-agers' food habits, and the effect of the reproductive cycle on nutrition status and requirements.

Speakers included Miss Dorothy Vorhies and Mrs. Barbara Birmingham of the nutrition and dietetics staff of the University of Missouri; Dr. Ray Hepner, associate professor of pediatrics at the University of Missouri Medical Center; Dr. Icie Macy Hoobler, consultant to the Merrill-Palmer School, Detroit; Dr. Genevieve Stearns, research professor of orthopedics at the State University of Iowa, Iowa City; Dr. Joseph Warkany, professor of pediatrics at the University of Cincinnati; and Dr. William J. McGanity, associate professor of obstetrics and gynecology, Vanderbilt University, Nashville, Tenn.

Antispasmodic Therapy

Adjunctive Prolonged-Action in Gastrointestinal Disorders

JOSEPH A. EZZO, M.D., *St. Louis*

DELAYED-ACTION ANTICHOLENERGIC preparations have been designed to provide a more sustained spasmolytic effect. Certain advantages are to be gained by controlling parasympathetic hyper-function, particularly during the nocturnal period. Prolonged, uniform release of medication should allow adequate regulation and eliminate the objectionable necessity of frequent pill administration. The present study was undertaken to evaluate the clinical application of one such preparation.

MATERIAL AND METHOD

The Belladenal Spacetab* is a delayed-action of an antispasmodic-sedative containing 0.15 mg. of Bellafoline (1-hyoscamine) and 50 mg. of phenobarbital. The routine dosage schedule employed included two tablets daily taken at approximately twelve hour intervals.

All subjects were followed in the Gastrointestinal Section of Saint Louis University Hospital. The patients under investigation received other antispasmodics for varying intervals prior and subsequent to the administration of Belladenal Spacetabs. Results on each group were ascribed by comparison of test and control periods. The response was recorded as excellent, good or none dependent upon complete relief, definite improvement or no change in symptomatology.

The patients were divided into four groups according to diagnosis.

Group I: These were twenty-three patients (fifteen males and eight females) with proven peptic ulcer; twenty were duodenal and three marginal in location. Six of these individuals had concomitant, roentgenologically demonstrated, esophageal hiatus hernia.

Group II: This category included twenty cases (eighteen females and two males) of functional gastrointestinal disturbance. The complaints of anorexia, belching, nausea, cramping and constipation were recorded. The majority disclosed symptoms of relatively prolonged duration. Roentgen examination of the esophagus, stomach, duodenum, terminal ileum, colon and gallbladder was normal in all instances. Repeated serum amylase (diastase) determinations were in the normal range.

Group III: There were ten patients (seven females and three males) with symptomatic diaphragmatic (esophageal hiatus) hernia. Complete x-ray examination in each case revealed no abnormalities other than the primary diagnosis.

Group IV: Included in this group were five additional patients (four females and one male), three with cholelithiasis and biliary colic, one with acute gastritis and one with diverticulitis.

The period of exaluation in the fifty-eight patients varied from three to nine months.

RESULTS (REFER TO TABLE)

Of the twenty-three patients with peptic ulcer (Group I), the response was excellent in eleven, good in ten, and no change in two. In the twenty cases with functional gastrointestinal complaints (Group II), an excellent response was noted in five, a good response in nine, and no change in six.

In the symptomatic diaphragmatic hernia patients (Group III) an excellent response was noted in three instances and no change in the remainder.

In the miscellaneous cases (Group IV) an excellent response was recorded in three (two cholelithiasis and one gastritis), and a good response in the other two. Approximately 75 per cent of the entire group proclaimed excellent or good response to the adjunctive administration of the test preparation.

DISCUSSION

Therapeutic application of anticholenergic compounds in gastrointestinal disorders is dependent upon inhibition of gastric hydrochloric acid production or relaxation of smooth muscle spasm mediated through the vagus nerves or both. These drugs are not "cure-alls"; their usefulness is adjunctive in combination with dietary measures, sedatives and, in specific situations, antacids. Bellafoline has been shown experimentally to be an effective antispasmodic, somewhat more potent and, perhaps, with fewer side effects than atropine.[2] Several clinical studies have indicated favorable response to this preparation in various conditions involving the gastrointestinal tract.[2, 3] In the product Belladenal, 1-hyoscamine is combined with phenobarbital in an attempt to alleviate so-called "tension" as well as attaining spasmolysis. This principle is sound as aggravation attributable to anxiety is particularly characteristic of gastrointestinal malfunctions. Gradual release for more sustained pharmacologic action affords definite advantage.[4] The present evaluation indicates that at least subjective improvement can be obtained with the prolonged-acting form of Belladenal. The low incidence of intolerance and some indication of ef-

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* Supplied by Sandoz Pharmaceutical Company.

From the Gastroenterology Clinic, Firmin Desloge Hospital, Saint Louis University School of Medicine.

Tick Paralysis

Report of a Case

ALFRED E. McDERMOTT, M.D., *Perryville*

EARLY ON THE morning of July 10, 1957, a 2 year old white female resident of Perry County was brought to my office in coma. The history was that the child had gone to bed the night before feeling well and without fever. She could not be aroused from sleep on this morning. No convulsive episodes had occurred, nor was there a family history of epilepsy or other significant disease.

Physical examination revealed a filthy, dehydrated child in a comatose condition. She was afebrile. The pulse rate was 150 per minute and regular. Cheyne Stokes type respirations were noted. Complete flaccid paralysis was present. Deep tendon reflexes were absent. The pupils were of normal size and reacted to light in a normal manner. Bowel sounds were hypoactive. No enlarged abdominal organs or lymphatic tissue could be found.

Since the child was dirty, an airway was assured and the nursing staff was instructed to bathe the child well prior to onset of diagnostic and therapeutic procedures. On so doing (and unbeknown to me until the following day), they removed a portion of a tick from her head. The partially embedded tick head was located about two inches left of the midline and one inch above the hair line.

Laboratory data showed a normal complete blood count. Blood sugar level was normal. Blood culture was also negative, even after three weeks culture. Spinal fluid pressure, analysis and culture were normal. The urinalysis was normal. Serum electrolyte determinations were within normal limits.

Subcutaneous fluids were started and close observation was begun. Approximately eight hours from the time the tick head was removed, the patient was alert and entirely normal. Observation for another twenty-four hours and follow-up at seventy-two hour intervals for four weeks showed no abnormality or sequelae.

This appears to be a case of tick bite paralysis. This disease should be kept in mind in the differential diagnosis and treatment of the comatose patient.

This patient was hospitalized at the Perry County Memorial Hospital.

This article was submitted by Dr. H. M. Hardwicke, acting director of the Missouri Division of Health.

Antispasmodic Therapy—Continued

ficacy with less frequent daily pill ingestion are encouraging and warrant further application. The inadequacies of this type of an investigation are fully appreciated. As previously emphasized, controls, double blind technic, and objective evidence of individual drug activity are of paramount importance for definitive conclusion,[5] but results with this form of drug therapy which suggest favorable effect deserve mention.

SUMMARY

1. Belladenal Spacetabs were administered to fifty-eight patients with various gastrointestinal disorders. In forty-three (74 per cent) a subjective response of excellent or good was assigned.

2. The desirability of a prolonged release form of antispasmodic medication is indicated. The results, although limited in a number of patients and criterion of response, encourage further clinical application of this type of preparation.

TABLE 1

RESPONSE TO BELLADENAL SPACETABS

Diagnosis	*No. of Patients*	*Response*		
		Excellent	*Good*	*No Change*
Peptic Ulcer	23	11	10	2
Functional Disorders	20	5	9	6
Symptomatic Hiatal Hernia	10	3		7
Miscellaneous	5	3	2	
TOTAL	58	22 (38%)	21 (36%)	15 (26%)

BIBLIOGRAPHY

1. Kramer, P., and Ingelfinger, F. J.: Use of Antispasmodics and Spasmodics in the Treatment of Gastrointestinal Disorders, M. Clin. North America **32**:1227, 1948.

2. Hardin, J. H.; Levy, J. S., and Seager, L.: A Clinical Comparison of the Antispasmodic Drugs, South. Med. J. **47**:1190, 1954.

3. Bargen, J. A.: The Problem of the Syndrome of Irritable Bowel, Gastroenterol. **30**:703, 1956.

4. Berkowitz, D.: The Effect of a Long-Acting Preparation (Spansule) of Belladonna Alkaloids on Gastric Secretion of Patients With Peptic Ulcer, Gastroenterol. **30**:608, 1956.

5. Kirsner, J. B.; Ford H., and Kassriel, R. S.: Anticholinergic Drugs in Peptic Ulcer; Their Current Status, M. Clin. North America 495, 1957.

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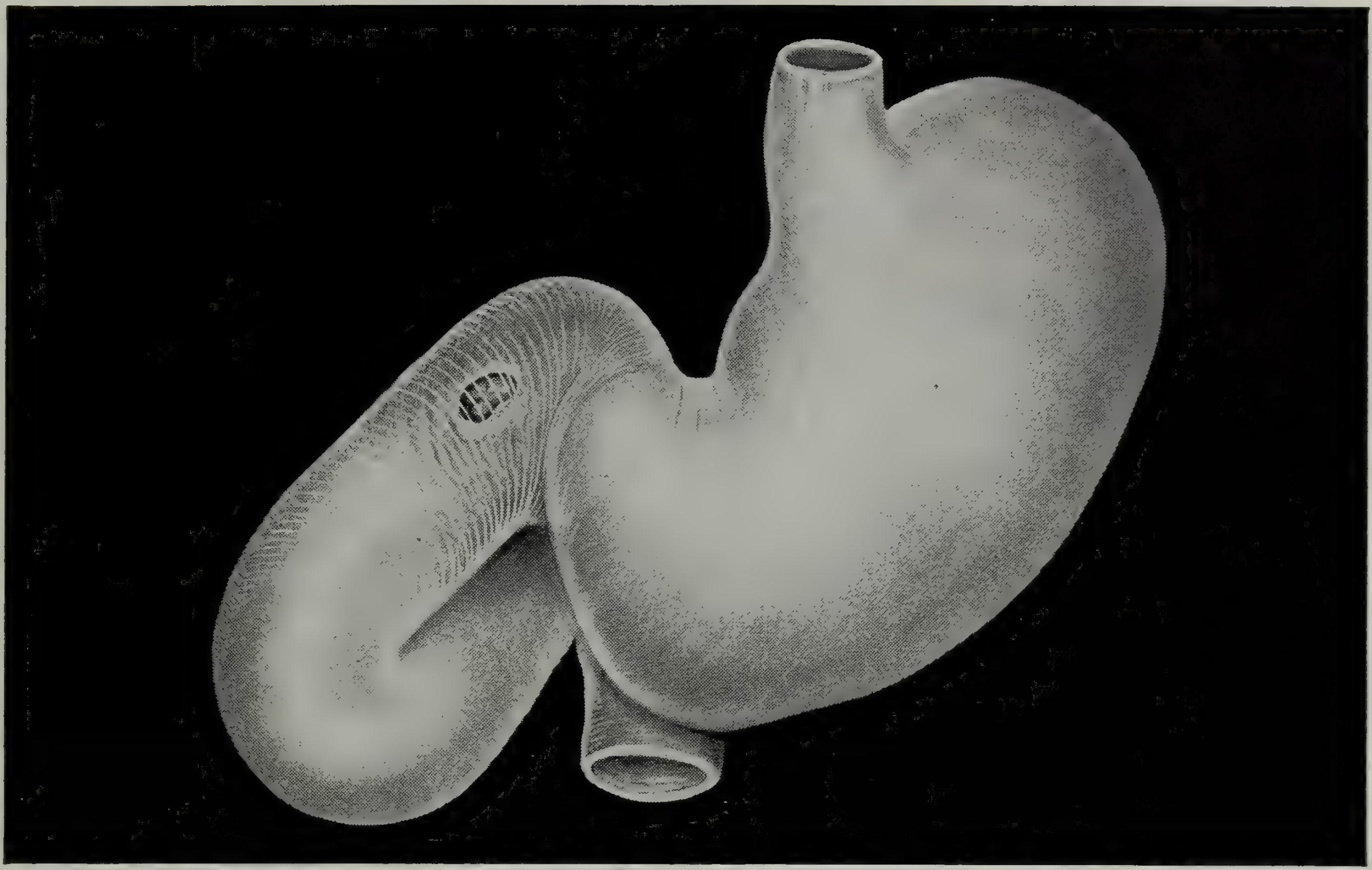
CONFIRMED THERAPEUTIC UTILITY



Pro-Banthīne® "proved almost invariably effective in the relief of ulcer pain,

*in depressing gastric secretory volume and in inhibiting gastrointestinal motility."**

"Our findings were documented by an intensive and personal observation of these patients over a 2-year period in private practice, and in two large hospital clinics with close supervision and satisfactory follow-up studies."*

Among the many clinical indications for Pro-Banthīne (brand of propantheline bromide), peptic ulcer is primary. During treatment, Pro-Banthīne has been shown repeatedly to be a most valuable agent when used in conjunction with diet, antacids and essential psychotherapy.

Therapeutic utility and effectiveness of Pro-Banthīne in the treatment of peptic ulcer are repeatedly referred to in the recent medical literature.

Pro-Banthīne Dosage

The average adult oral dosage of Pro-Banthīne is one tablet (15 mg.) with meals and two tablets at bedtime.

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

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*Lichstein, J.; Morehouse, M. G., and Osmon, K. L.: Pro-Banthīne in the Treatment of Peptic Ulcer. A Clinical Evaluation with Gastric Secretory, Motility and Gastroscopic Studies. Report of 60 Cases, Am. J. M. Sc. *232:*156 (Aug.) 1956.

SEARLE

Special Articles

The New Nursing Home Law

An Evaluation of How It Affects Practicing Physicians

H. M. HARDWICKE, M.D., *Jefferson City*

WITH THE ENACTMENT of Senate Bill No. 41 by the 69th General Assembly there was created within Missouri a nursing home licensing law. This law compares favorably with comparable laws in other progressive states. It invests in the Division of Health the responsibility for seeing that residents in nursing homes live in a safe, sanitary environment and receive the type of care which their condition requires.

In order that this law be implemented as rapidly as possible, the Division of Health assigned six sanitarians, trained in fire inspection, to the job of inspecting every nursing home in Missouri. The Division of Health also borrowed four fire inspectors from other government agencies in order to assist in the preliminary survey of fire hazards in nursing homes. Due to the fact 72 persons perished earlier this year in the Warrenton nursing home fire, we felt our primary responsibility was to see that patients live in fire safe homes.

Finished the Survey

The fire survey has been completed.

We now are working with 607 nursing homes to help them comply with the fire code. A majority of these will be ready for certification as fire safe in the very near future. These 607 nursing homes house about 14,000 patients.

During the time that homes were being surveyed for fire safety, registered nurses were being recruited by the health division and trained for their work in nursing homes. The majority of these nurses now are working with nursing home operators to improve the quality of care rendered patients.

It is clearly understood by the health division that patient care in nursing homes in Missouri can not reach an optimum level without the full cooperation of practicing physicians.

Nurses have been instructed to call upon physicians, who have patients in nursing homes. They will ask for guidance in the choice of nursing techniques to be taught operators and attendants in the home.

It is not our intention for any of the nurses employed by the Division of Health to either diagnose or prescribe for patients. It is our sincere hope that practicing physicians of Missouri will assist these nurses in every way possible to obey their orders.

It is possible that at times the Division of Health nurses will see patients in nursing homes which in their opinion require more nursing care than can be rendered within the institution in question. They will at such times call upon practicing physicians to assist them in clarifying this point.

Health Division Will Cooperate

If, in the practicing physician's opinion, a patient can not receive the type of care which he or she needs in the institution in which they are now a resident, the physician can expect full cooperation from the Division of Health employees. He also can expect to receive every assistance in helping him relocate a patient in an institution offering the proper facilities for that patient's care.

Personnel of the Division of Health are fully aware of the practicing physician's desire that no residents of Missouri receive inadequate nursing or medical care. Our nurses, therefore, have been instructed to contact practicing physicians and ask their help, guidance and cooperation in the upgrading of the quality of care received by patients in nursing homes in this state.

Nursing home care is a very important part of total patient care. Chronically ill patients should not have to occupy beds in acute general hospitals, and yet chronically ill patients who are placed in nursing homes should receive the quality of care to which they are entitled. With the full cooperation of the practicing physicians in Missouri, the Division of Health will do its utmost to see that this comes to pass in Missouri.

Dr. Hardwicke, acting director of the Division of Health, prepared this article at the request of the Council of the Missouri State Medical Association.

PSYCHOANALYSIS LIBRARY OPENS

A reference library of psychoanalytic material was opened recently by the Psychoanalytic Foundation of St. Louis. The foundation is jointly sponsored by St. Louis and Washington Universities.

The library is open to physicians, students, and others interested in psychoanalytic study. At present, about 500 volumes are ready for use and others are on order. Books are available without charge.

The new library is located at 100 N. Euclid Avenue, St. Louis.

Some Practical Uses of Electromyography

OTAKAR MACHEK, M.D., *St. Louis*

MY INTEREST in chronaximetry and electromyography dates from 1950, at which time I was concerned with neurological problems in an orthopedic hospital. I have for the last three years done electromyography at the Saint Mary's group of hospitals and I wish to present a few of the facts and ideas that have developed as a result of this clinical experience.

The principles employed in this method are the same as those of electrocardiography and electroencephalography and since these principles are generally accepted, it follows that the study of action potential in a skeletal muscle will also be useful in evaluating neuromuscular disorders. In electrocardiography it is enough to amplify the tissue currents so that one millivolt describes a tracing of 1 cm. and, since the frequency does not exceed 100 cycles per second, pen writers can be used.

For electroencephalography greater amplification is needed, but since the frequency is less than 100 cycles per second pen writers are again satisfactory, but the potentials of electromyography are of such short duration that a response sensitivity of 20 to 10,000 cycles per second is necessary. The inertia of pen writers make them unsatisfactory under such circumstances, but suitable equipment has been developed.

EQUIPMENT

The instrument which is called a electromyograph it a sensitive cathode ray oscilloscope with a high gain sound amplifier for the visual and acoustical recording of action potentials. There are various methods of recording action potentials. The Disa Electromyograph has three leads and three oscilloscopes for visual observation and another set of three scopes with lenses focused on photosensitive paper so that any portion of the tracing observed can be recorded permanently. This feature makes this instrument useful for documentation as, for example, in compensatory injuries.

With this instrument one can study the following:

1. Analysis of the duration, amplitude, shape of the individual muscle action potential.
2. Electrical activity as it accompanies voluntary effort: (a) Determination of the number of impulses per unit time, at maximal contraction; (b) investigation of time correlation between action potentials, led off simultaneously from different points of the same muscle.
3. Spontaneous electrical activity arising at rest in special pathologic conditions.
4. Muscle action potential following electrical stimulation of the nerve.
5. Study of muscle coordination.

ACTION POTENTIAL

The impulse is propagated along the motor neuron to approximately 150 muscle fibers and makes them contract as a motor unit. The action potentials produced by the contraction of one or several motor units gives information about the status of the muscle. In order to have valid information, the muscle has to be explored; that is, the needle electrode must be inserted into several sites in the same muscle.

What can be measured on action potentials?[1] The parameters of action potentials are: (1) voltage, (2) duration, (3) wave form, (4) frequency, (5) sound.

1. Voltage is the amplitude of the action potential as compared to calibration which may be set at 50 to 100 or 200 microvolts. Amplitude is in direct relation to the tension of the muscle and in submaximal effort in the linear relationship to the muscle strength.
2. Duration may vary with various conditions of the muscle and correlates well with spacial configuration of the end plates. The duration is also indicative of the size of the motor units. In the study of muscles affected by poliomyelitis one year after onset, those not improving and rated 10 to 25 per cent of normal muscle strength had 30 per cent increase in duration.[2] This test can be used for prognosis to save wasteful therapy.
3. Wave form may be monophasic, diphasic, triphasic or polyphasic. There may be summation in which case it is difficult to study the form.
4. Frequency depends on the number of motor units activated.
5. Sound is an acoustic registration of action potentials and the sound is typical in various conditions, such as in myasthenia gravis, diving airplane. The record of sound can be kept on tape. Some investigators project the sound on cathode ray oscilloscopes similarly as done in cardioscope. For clinical purposes this would just complicate the testing.

USES OF ELECTROMYOGRAPHY

Electromyography can be used in the study of numerous neuromuscular disorders, such as poliomyelitis, amyotrophic lateral sclerosis, progressive muscular atrophy, progressive muscular dystrophy, amyotonia congenita, myasthenia gravis, paralysis agitans, nerve injuries, Bell's palsy, brachial and other plexus lesions; also in low back pain caused by nerve root irritation, as protrusion of a nucleus pulposus. Electromyography correlates

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Department of Physical Medicine and Rehabilitation, Saint Mary's Group of Hospitals, Saint Louis University, St. Louis.

well with more complicated tests, such as myelography. Another interesting use is in some collagen diseases and also in cases of malingering.[3] At rest the fibrillation potential cannot be produced at will. The synergistic and stabilizing action of a muscle can be recorded without interference of will-power. The cross innervation can be demonstrated, that is, exercise of the unaffected side will increase tone in the affected side if the pathways are intact, so that once the subject submits himself to electromyography he cannot appreciably influence the findings. In nerve blocks the technic can be improved if the needle becomes the stimulating electrode and potentials measured with other electrodes before and after blocking. There are many other clinical and research uses.

EXAMPLE OF METHOD OF TESTING

In spinal nerve root compression, needle electrodes are inserted in muscle groups of various myotomes. Since these overlap, various muscles from segments above and below have to be sampled. Localization of a segment must coincide with localization through sampling of the paraspinal muscles which are innervated by the posterior primary rami of the spinal nerves.

A NEW USE FOR ELECTROMYOGRAPHY

Utilization of reflexly reinforced motion was proved to be useful in training of hemiplegics, using "The Tonic Neck Reflex in the Hemiplegic."[4] The same principle can be applied in reflexly reinforcing the process of relaxation using visual and acoustic pathways. To accomplish it the patient will be asked to make the wave disappear and make it a straight line on the cathode ray oscilloscope and make the sound disappear. This may be more effectual than the conventional method of progressive relaxation.

SUMMARY

Electromyography can be used:

1. For diagnosis and prognosis of many neuromuscular disorders.
2. For study of the activity of agonists and antagonists in kinesiology or in extra pyramidal lesions.
3. In nerve blocks.
4. In legal medicine.
5. Useful testing for location of the level of protruding intervertebral disk.
6. It is hoped that it will prove useful in treatment of various conditions of increased tone in the skeletal muscles.

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BIBLIOGRAPHY

1. Buchtal, F.; Pinelli, P., and Rosenfalck, P.: Action Potential Parameters in Normal Human Muscle and Their Physiological Determination. Acta Physiolo Scanda **32**:2, 1954.
2. Pinelli, P., and Buchtal, F.: Duration, Amplitude and Shape of Muscle Action Potentials in Poliomyelitis. Electroencephal. **4**:497, 1951.
3. O'Leary, P. A.; Lambert, H. H., and Sayre, G. P.: Muscle Studies in Cutaneous Diseases, J. Invest. Dermat. **3**:301, 1955.
4. Yamshon, L. J.; Machek, O, and Covalt, D. A.: The Tonic Neck Reflex in the Hemiplegic, Arch. Phys. Med. **30**:706-711 (November) 1949.

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for certain disorders of menstruation and pregnancy

TRULY EFFECTIVE PROGESTATIONAL THERAPY BY MOUTH

NORLUTIN T.M.

(norethindrone, Parke-Davis)

oral progestogen
with
unexcelled potency
and
unsurpassed efficacy

Now, with small oral doses of this new and distinctive progestogen, you can produce the clinical effects of injected progesterone. In amenorrheic women for example, "As little as 50 mg. of [NORLUTIN] administered in divided doses over a five-day period was sufficient to induce withdrawal bleeding."[1]

CASE SUMMARY[2]

Amenorrhea of 4 years' duration in a 24-year-old married woman. A course of 10 mg. NORLUTIN twice daily for 5 days was followed after 3 days by menses lasting about 5 days. Since no spontaneous menstruation occurred during the following 35 days, she was given another course of treatment with NORLUTIN, 10 mg. twice daily for 5 days. This was followed by menses.

When this patient was given ethisterone, 40 mg. twice daily for 5 days, no bleeding had ensued when she was seen 41 days later.

INDICATIONS FOR NORLUTIN: conditions involving deficiency of progestogen such as primary and secondary amenorrhea, menstrual irregularity, functional uterine bleeding, endocrine infertility, habitual abortion, threatened abortion, premenstrual tension, and dysmenorrhea.

PACKAGING: 5-mg. scored tablets (C. T. No. 882), bottles of 30.

REFERENCES: (1) Greenblatt, R. B.: *J. Clin. Endocrinol.* **16**:869, 1956. (2) Hertz, R.; Waite, J. H., & Thomas, L. B.: *Proc. Soc. Exper. Biol. & Med.* 91:418, 1956.

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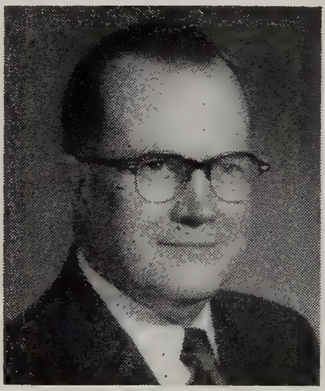
President's Page

The medical profession is going to have its hands full in January when Congress starts, if it expects to defeat the bill to give FREE hospital and surgical care to persons receiving social security payments.

Not only would this bill apply to persons already receiving monthly retirement checks, but also to every man over 65 and every woman over 62 eligible for social security—whether they had retired or not!



The author of the bill, Rep. Aime J. Forand, Rhode Island Democrat, explained that it "is undesirable that aged persons should feel they have to stop working to receive the benefits of this program. . . ."

Needless to say, the MSMA Council took a strong stand against this proposed social legislation at the last meeting September 21-22 in St. Louis. The Council put the MSMA on record as opposed to the Forand Bill, and is urging every physician to actively oppose the bill.

Mr. Forand put his bill in during the waning days of last session with the full approval and support of organized labor. In fact, the Congressional Record reports he made the following remarks before the House of Representatives:

"I am gratified that President George Meany of the AFL-CIO has endorsed my proposed amendments as necessary, sound and enlightened. As he points out the AFL-CIO has long urged many of these proposals."

The American Medical Association also has taken up the fight against the bill that would cost an estimated 2 billion dollars a year. Workers and their employers and the self-employed covered by social security would pay for it.

The A.M.A. Board of Trustees has appointed a special Task Force of physicians to guide its efforts to defeat the legislation.

Defeating it will not be easy, however, because the proposed legislation has strong appeal to many persons and groups across the nation.

First, of course, will be the nearly 13 million people already receiving social security payments that would be immediate benefactors—not to mention the other millions who see social security just around the corner.

Second, will be the groups within the health field that see a ready answer to many of their money problems.

Representative Forand's bill would cover:

- Hospital services would be "the usual hospital services in semi-private accommodations."
- A total of 120 days of hospital or nursing home care would be allowed each year, but no more than 60 days of this could be hospital care.
- Admission to a hospital or nursing home would be by certification of a physician that such care is needed.
- The social security money would pay for surgical services certified as necessary by the physician. This would include necessary oral surgery. Necessary minor surgery or emergency surgery would be permitted in a doctor's office.

Mr. Forand described the provisions of his bill as "modest." He explained:

"They have been limited deliberately to facilitate enactment of this much-needed measure in 1958."

He also explained further it "is appropriate that this additional needed protection should be provided within the framework of the national system firmly established as the AMERICAN WAY of providing workers and their families with protection against the hazards of income loss due to old age, disability or death."

I don't need to point out to you what a fine vote getter this bill will be next year in the off-year election with both parties fighting to control Congress.

What I would like to do is to urge aggressive action by each physician and each county society.

Write your Congressmen, see them when possible. Tell them how you feel about this attempt to move the nation closer to socialized medicine.

Walter S Sewell M.D.

EDITORIALS

Priority System Fails to Solve Clamor for Asian Flu Shots

Most of the heat being generated by the present tight supply of Asian flu vaccine is a result of the old law of supply and demand.

All of the voluntary priority systems in the world can't guarantee compliance all the way along when the supply line is so complex as this one.

There have been, of course, numerous reports of some groups ordering and receiving vaccine for their employees and others without regard for the priority plan. This evidently is unavoidable because many orders were placed before the establishment of a priority system.

The situation is made even worse by the influenza itself. It seems to be achieving epidemic proportions in many parts of the nation earlier than was predicted.

Millions of Europeans, from Scandinavia to the the Balkans, also are reported to be suffering from influenza—much of it the Asian variety.

The American Foundation for Allergic Diseases has issued a special warning for physicians to be especially wary of vaccinating persons with an egg allergy. They say the "risk of producing a serious allergic reaction will ordinarily outweigh the risk of serious consequences from an attack of the Asian influenza. . . ."

Wealth vs. Welfare

The Canadians have used an old adage to typify the push for increased welfare benefits. In a recent study, they typify society as "trying to eat its cake before it has it."

"Wealth must come before welfare," the study states, "because in the long run it is productivity and not the degree to which income redistribution is arranged by legislation that determines real income."

The document, prepared at the request of the Canadian Chamber of Commerce and the Canadian Life Insurance Association, examines the problem of choice between the "two desirable social objectives"—wealth and welfare.

It points out that too much concern with welfare projects may kill the golden goose, in this case the "wealth-creating capacity of the community."

"On the one hand, taxes beyond a certain level tend to dry up sources of saving and investment and reduce incentives to strive for higher personal income. . . ."

And the following statement from the study becomes even more important when you hear that our federal contributions for public assistance have increased about 700 per cent since 1936.

"On the expenditure side, the expansion of welfare benefits tends to narrow the scope of personal responsibility and dull incentives for personal advancement on the part of recipients."

Undoubtedly the study, entitled "Underwriting Canadian Health—An Economic View of Welfare Programs," will add a lot to the general understanding of the social and economic implications of government welfare programs.

In the United States as well as Canada, the emphasis should be on increasing the national productivity and output—not the welfare program.

Plan Medical Education Week

The third annual Medical Education week will be observed nationally during the last week of April by the medical profession and the medical schools.

April 20 to 26 will be devoted to an all-out effort to create a better public understanding of the achievements and the problems facing the schools. The sponsoring organizations are the American Medical Association, the Student American Medical Association, the Woman's Auxiliary of the A.M.A., the Association of American Medical Colleges, the American Medical Education Foundation and the National Fund for Medical Education.

* * *

The AMEF reports that in September Missouri physicians gave $1,305 to the Foundation for medical schools.

Dr. James P. Murphy of St. Louis, chairman of the state AMEF committee, said that about one-fourth of the state's doctors gave last year. A total of 229 doctors and auxiliaries gave $7,484 to AMEF (to be divided among all medical schools), while 929 physicians contributed $41,993 direct to the schools from which they had graduated.

The AMEF will make its big push for contributions during November. The Foundation hopes to raise 2 million dollars from the medical profession and 8 million from industry. The program was started to keep the medical schools independent of government subsidy. The gifts, of course, are tax deductible.

New "Invisible Sell" for TV

A new television advertising technic, dubbed the "invisible sell," makes a resolution of the recent A.M.A. House of Delegates extremely timely.

The resolution adopted in June in New York calls for closer liaison with the television and ra-

(Continued on page 1100)

Musings of the Field Secretary

The Jefferson County Medical Society is the recent recipient of a letter from the association of county high school superintendents expressing appreciation for the interest and efforts of the Society in the prevention and treatment of high school athletic injuries in the schools of Jefferson County.

Bigness seems to have different meanings. Sometimes it relates to size only—including large numbers of items or people. On other occasions, it may mean something which is implicitly expressed in citing the following event:

The Cape Girardeau County Medical Society *Journal* was selected to receive the 1957 Honor Award for Distinguished Service in Medical Journalism in Class 3B (medical periodicals of county or city medical societies, with membership of less than 500 members and whose organization does not employ an executive secretary or manager). This award consisting of a citation plaque is given annually by the American Medical Writers' Association.

This year it was presented at the annual dinner meeting of the A.M.W.A. held at the Sheraton-Jefferson Hotel in St. Louis Friday evening, September 27. J. H. Keim, M.D., of Cape Girardeau, present editor of the Cape Society *Journal* received the plaque on behalf of his medical society.

This medical society journal has had, to date, four editors. They are: D. R. Seabaugh, M.D., Cape Girardeau (1952-53); J. H. Trolinger, M.D., Jackson (1954); Milton Shoss, M.D., Cape Girardeau (1955), and J. H. Keim, M.D. (1956-57). The membership of the Cape Girardeau County Medical Society numbers 49.

There are two counties now in Missouri which do not have a resident M.D. They are Carter and Maries. It is rumored that there is good fishing and hunting down in Carter County along with beautiful scenery and low overhead. Folks get sick down there too.

STATE HOSPITAL ADVISORY COUNCIL

The Missouri Senate confirmed the appointment of six members to the State Advisory Council to the Division of Health at its recent special session. The names were submitted by Gov. James T. Blair, Jr.

They were: Ralph D. Foster of Springfield; Arthur D. Markel, M.D., of Poplar Bluff, reappointment; James D. Hicks, D.O., of St. Louis, reappointment; A. E. Spelman, M.D., of Smithville; Miss Susan S. Jenkins, Kansas City, and A. D. Signorelli, M.D., St. Louis.

The seventh member of the Council is Sam B. Cook of Jefferson City, whose term expires December 2.

The Council assists the health division in the licensure of hospitals and the processing of applications for Hill-Burton funds.

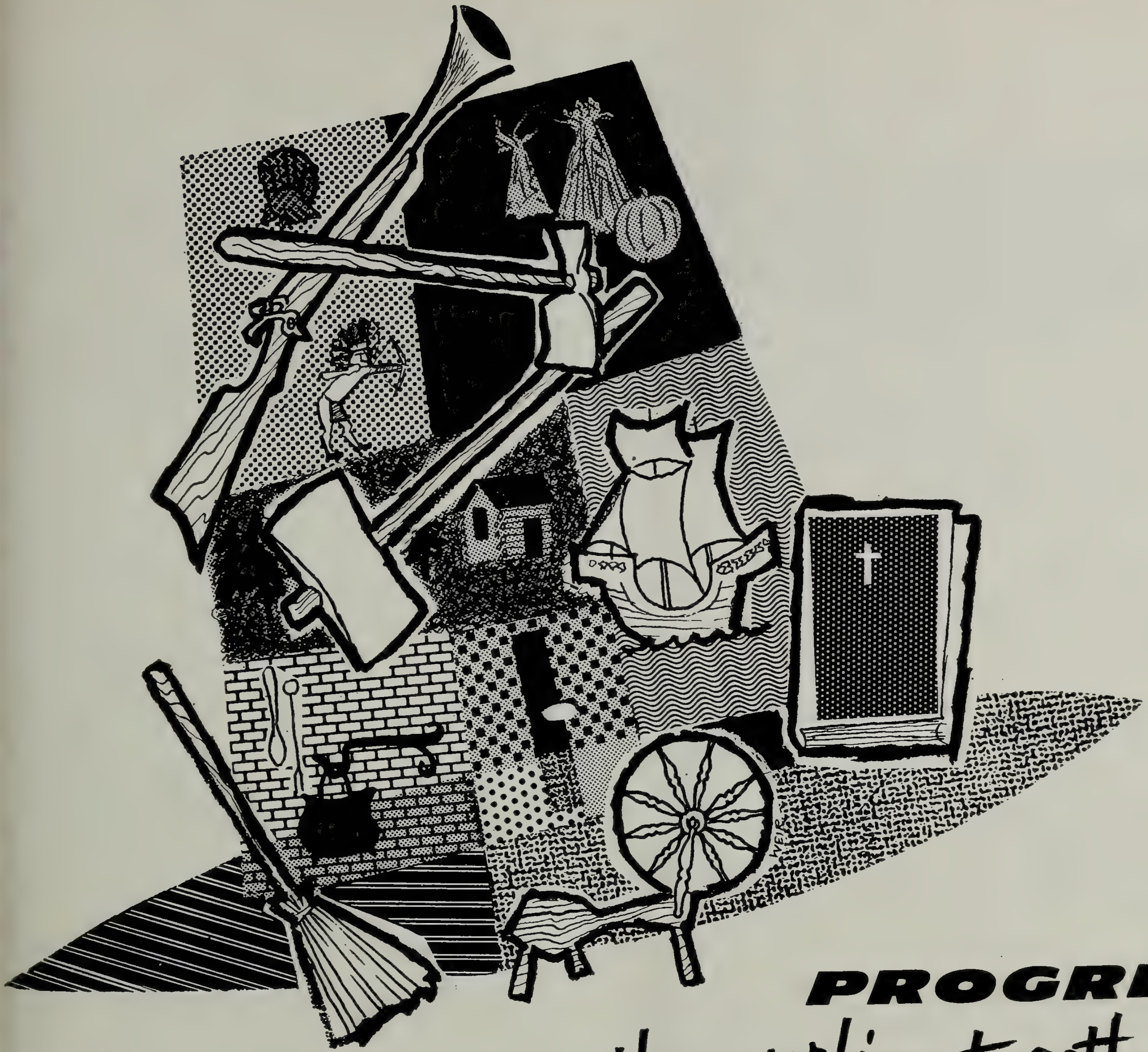
Missouri Medical Meetings

Missouri State Medical Association Annual Session, St. Louis, April 13-16, 1958.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Society—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—third Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—March, May, October and December.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets third Friday of each month.
Johnson County Medical Society—meets only on call.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark-Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month, 7:30 p.m.
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Webster County Medical Society—meets only on call.
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.



FROM pioneer days throughout American history, the pathway to progress has been *teamwork* . . . people, voluntarily working together toward common goals.

Contemporary American history contains a classic example of progress through teamwork in the development and growth of BLUE CROSS and BLUE SHIELD. For, these Plans are people — a partnership of doctors, hospitals, and the public — working together to bring good health care financially within the reach of everyone.

Just an idea less than three decades ago, these Plans are now subscribed to by nearly one third of the nation's population . . . are sponsored by 6,000 hospitals and 122,000 physicians.

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KANSAS CITY
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News

About 100 physicians from the Kansas City area attended a 1-day symposium on general medicine September 12 at the Sheraton-Cadillac Hotel in Detroit. Parke, Davis & Co., sponsor of the symposium, designed the program to give physicians "an opportunity for a thorough briefing by specialists on current trends in the various fields of medicine." On September 13, the physicians toured the drug firm's main laboratories.

The medical staff of the Phelps County Memorial Hospital again has volunteered to provide standby medical attention at the home games of the Rolla High School Bulldogs during the coming football season. This service has been offered for the past several years.

The roster of doctors includes a substitute in the event the assigned physician is unable to attend. The doctors assigned are all from Rolla, with the exception of two from St. James.

The Saline County Medical Society recently approved the Patch test method of tuberculosis case finding for all county schools, **Dr. George Aiken**, Marshall, reports.

The Patch test program was a joint project of the Society, the county nursing service, the county and city schools and the Saline County Tuberculosis Association. Dr. Aiken, medical advisor to the tuberculosis association, was a member of the planning committee.

The Missouri State Sanatorium at Mount Vernon recently celebrated its Golden Jubilee. **Charles A. Brasher**, M.D. is the medical director of the institution.

Two days were set aside for the celebration. It featured free X-Ray examinations for former patients, a colorful parade of floats depicting the work of the hospital, a musical variety show and a film strip of former homecomings.

There were displays of the various services offered to patients to aid in their total rehabilitation. X-Rays of various types of chest disorders as well as methods of treatment were shown. Types of handicrafts also were displayed by the rehabilitation department.

The local Chamber of Commerce sponsored a barbecued chicken dinner to all ex-patients and their immediate families. The highlight of the celebration was a pageant and the presentation of a homecoming queen. She was chosen from five candidates, all patients.

During the Jubilee there were conducted tours through the sanatorium to see the modern equipment and methods used in the treatment of TB, lung cancer and other chest diseases.

The Missouri State Sanatorium, created by the 43rd General Assembly, was the first state institution of its kind west of the Mississippi. There are now 435 patients, and to date 27,000 persons have been treated there.

Robert L. Ward, M.D., Centralia, has announced the addition of a new physician in his office. He is Louis A. Bealer. Dr. Bealer, a graduate of Westminster College, Fulton, University of Missouri, University of Pittsburgh Medical School and a native of Eldon, has moved his family to Centralia. Mrs. Bealer is a native of Fulton.

Lexington's mayor, Henry Dankers, officially designated Sunday, October 6 as "Dr. Bryan Tempel Payne Appreciation Day in Lexington." A special program was planned honoring **Dr. Payne** who will have completed 50 years of medical service to the community on December 1.

"How Well Do You Know Your Heart?" was the topic presented at the Pettis County Medical Forum, held at the Smith-Cotton high school, Sedalia, September 17. The guest speaker was **J. M. Martt**, M.D., Columbia.

Dr. Martt, who is assistant professor of medicine and director of the heart station at the University of Missouri School of Medicine, spoke on the development and anatomy of the normal heart and what happens in various disease processes involving the heart.

The forum was presented as a community service by the Pettis County Medical Society and the Pettis County Council of the Missouri Heart Association.

Durward Hall, M.D., Springfield, has been appointed chairman of the Civics Projects Committee of the Springfield American Legion Post. Legion members supported the Springfield Baptist Hospital building fund campaign. They plan to raise enough money to establish a memorial room in the hospital.

The residents of Bates County in a special election on September 17 approved five to one a $350,000 county bond issue to construct a new hospital.

The Butler Memorial Hospital, now serving all the county, was in danger of being closed unless costly improvements were made to the present plant. After careful investigation, it was deemed advisable to build a new hospital.

A Nevada physician and surgeon, **Rolla B. Wray**, M.D., was made a Fellow of the International College of Surgeons at the convention of the Canadian-United States section of the organization recently in Chicago.

S. L. Gernstetter, M.D., Poplar Bluff, recently was elected a member of the board for the Missouri Rehabilitation Association. Dr. Gernstetter has been interested in rehabilitation work for the handicapped for a number of years.

At the annual meeting of the St. Joseph Hospital staff in Kirkwood, **F. J. Catanazaro**, M.D., Kirkwood, was elected president; **Lloyd S. Rolufs**, M.D., Kirkwood, vice-president; and **Edwin L. McCall**, M.D., Brentwood, secretary-treasurer.

(Continued on page 1105)

CLINICAL COLLOQUY

"My patients complain that
the effect of the pain tablet I prescribe
often wears off in less than 3 hours."

***“Why not try the new analgesic
that gives faster,
longer-lasting pain relief?”***

"You mean something that
doesn't require repeat dosage so often?"

***“Yes—it's called Percodan.®
It not only works in 5 to 15 minutes but
one tablet sustains its pain-relieving effect
for 6 hours or longer!”***

"How about side effects?"

***“No problem. For example,
the incidence of constipation
is rare with Percodan.*”***

"Sounds worth trying—what's the average adult dose?"

“One tablet every 6 hours. That's all.”

"Where can I get literature on Percodan?"

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The Council

The Council met at the Coronado Hotel, St. Louis, on September 21-22, 1957, with R. O. Muether, M.D., St. Louis, Chairman, presiding. Those present were: Drs. Muether, Donald M. Dowell, Chillicothe; J. C. Creech, Troy; Bryon M. Stuart, Boonville; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; W. W. Tillman, Springfield; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Walter S. Sewell, Springfield; W. F. Francka, Hannibal; E. Royse Bohrer, Jefferson City; Jerome I. Simon, St. Louis; Joseph L. Fisher, St. Joseph; James P. Murphy, St. Louis; James G. Janney, Jr., St. Louis; H. M. Hardwicke, Jefferson City; Thomas H. Alphin, Washington, D. C.; Messrs. David L. Galbraith, Springfield; John Nobel, Kennett; Hollister Smith, Lemoine Skinner, Ed Schneider, Ray McIntyre, Bill Logan and T. R. O'Brien, St. Louis. Sunday: Drs. Ronald Elkins, Springfield; Leonard T. Furlow, St. Louis.

Minutes

The minutes of the meeting held June 15-16, were approved as mailed to the members of the Council.

Secretary's Folder

Mr. O'Brien introduced Mr. William Logan, a new member of the MSMA staff.

Mr. O'Brien reported to the Council that the Association had entered into an Agency Agreement with the Mercantile Trust Company and that $10,000 had been invested in treasury notes to replace the Series G and K Government bonds which are no longer available.

Mr. O'Brien presented a request from the National Society for Medical Research for a donation. On motion of Dr. Perry, seconded by Dr. Dowell, it was voted the annual donation of $50 be made.

A supplemental appropriation was requested by Mr. O'Brien for furniture and fixtures for the office, in view of the added personnel. On motion of Dr. Sewell, seconded by Dr. Tillman, an additional $1,500 was authorized for the purchase of desks, adding machine, typewriter, chairs, etc.

Mr. O'Brien discussed the possibility of instituting a new billing procedure for the office. He explained that he had checked into the idea of IBM system. Using IBM or another method which was described would involve doing the billing for the county, state and A.M.A. at one time, thus eliminating some of this work for the county society secretaries. After discussion, it was suggested by Dr. Perry that the new method, if any, be worked out with the county societies which are mainly involved, namely, St. Louis City, St. Louis County and Jackson County.

On motion of Dr. Tillman, seconded by Dr. Bohrer, it was agreed to authorize up to $150 for the preparation of new billing forms, etc., in the event our present method is changed.

Treasurer's Report

Dr. Simon reported on the finances of the Association and suggested that the Council authorize the investment of $20,000 based on recommendation from our financial advisor, the Mercantile Trust Company. On motion of Dr. Simon, seconded by Dr. Sewell, it was voted to secure a recommendation from our financial advisor, the Mercantile Trust Company for investing $20,000 in securities.

On motion of Dr. Sewell, seconded by Dr. Dowell, the treasurer's report was accepted.

Asian Flu

Dr. Hardwicke reported briefly on the first nationwide meeting on Asian influenza held August 11 in Kansas City. Dr. Perry represented the MSMA at this meeting.

Dr. Hardwicke discussed a proposed press release concerning the meeting called by him September 10, of an Advisory Committee in Jefferson City, as follows:

"On September 13, Dr. H. M. Hardwicke, Acting Director of the Division of Health, met in Kansas City with representatives of licensed manufacturers of Asian influenza vaccine. The purpose of the meeting was to discuss ways and means of implementing recommendations of the influenza advisory council.

"Local representatives of the manufacturers agreed to cooperate fully with the priority system as established by the council. Those attending the meeting in Kansas City recognized, however, that a great portion of the responsibility for enforcing any distribution program would rest with hospital administrators and practicing physicians in the state. Personnel of departments of government eligible for vaccine will be certified to by the Division of Health and may purchase directly from the manufacturers. Vaccine will be administered to certified government personnel by practicing physicians of their choice.

"The great majority of persons eligible for vaccine under the approved distribution program will be at the municipal and county level where certification by the Division of Health would not be practicable. Available vaccine will, therefore, be distributed in an equitable fashion to pharmacies, hospitals, and practicing physicians. Pharmacies have, through the offices of the Missouri Pharmacy Board, agreed to distribute only to practicing physicians who will immunize those persons covered by the priority system.

"Hospital administrators have, through the Missouri Hospital Association, agreed to cause only those employees considered essential to the operation of the hospital to receive vaccine.

"The Missouri State Medical Association and the Missouri Association of Osteopathic Physicians have both agreed to abide by the priority system as developed at the September 10 meeting of the influenza advisory council.

"Since Asian influenza vaccine will continue to be in short supply for some time and:

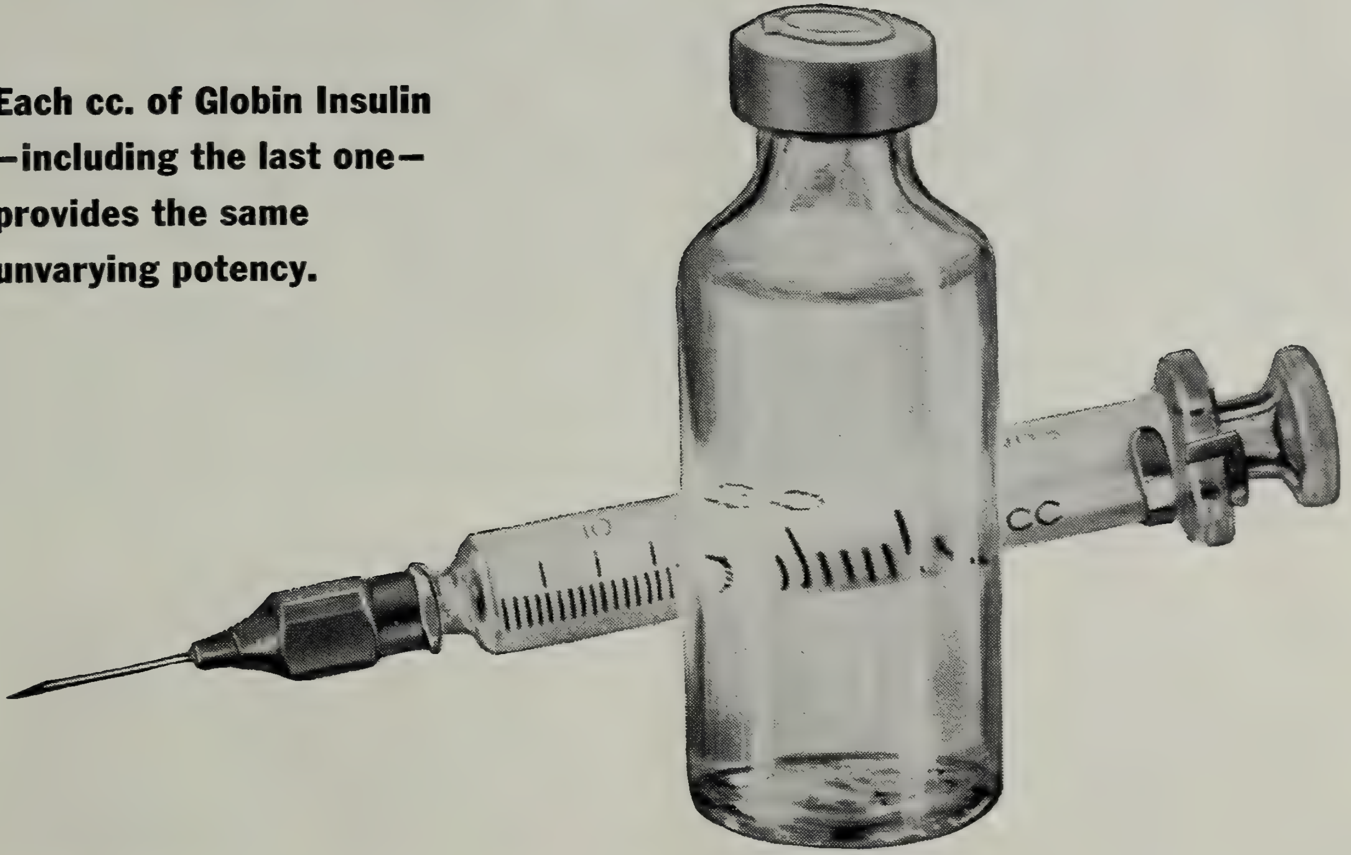
"Since Asian influenza in epidemic proportions is potentially serious only because of the large number of people affected and not because of the severity of the individual case:

"The Division of Health felt it advisable to follow recommendations of the office of the Surgeon General of the United States Public Health Service and cause to be established priority systems and recommendations which would tend to insure the continuity of essential community services in the event of an epidemic."

On motion by Dr. Tillman, seconded by Dr. Sewell,

Avoid "BOTTOM OF THE VIAL" reactions

Each cc. of Globin Insulin —including the last one— provides the same unvarying potency.



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24-hour control for the majority of diabetics

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the Council approved the release of Dr. Hardwicke's proposed press release.

On the motion of Dr. Summers, seconded by Dr. Bohrer, the Council also approved Dr. Allen's report on the September 10 meeting. Dr. Allen, MSMA representative on the Asian Flu Advisory Committee, was unable to be present to read his report, which follows:

Report of the Special Advisory Committee to the Division of Health Regarding Asian Flu

The meeting held September 10 at the Governor Hotel, Jefferson City, was called so medical leaders could decide what plans were needed to cope with the anticipated Asian flu epidemic. Dr. Henry A. Hardwicke, acting Director of the Division of Health called the meeting.

Those present were: Dr. William C. Allen, Glasgow, chairman of the Civil Defense Committee, MSMA; Dr. A. E. Spelman, Smithville, chairman of the Rural Medical Service Committee of MSMA; Mr. Bill Logan of the Association staff, and representatives of 16 other health and interested groups.

Action

1. The special advisory committee of 26 persons decided the emphasis should be placed on "home care." In other words, the public will be encouraged to stay at home when suffering from Asian flu rather than attempt to gain admittance to the hospital.

2. Due to the fact that our hospitals now operate at about 90 per cent capacity and a large majority of the public have voluntary hospital insurance of one type or another, it was felt that in event of an epidemic of influenza if uncomplicated cases of influenza were eligible for hospitalization under the voluntary insurance a major problem would result. Thus it was recommended that a special committee be appointed to contact and meet with representatives of the various voluntary hospital insurance companies to determine what could be worked out.

3. The committee also adopted a recommended priority list for the vaccine shots which are expected to be in short supply for some time to come. While the committee realized there is no way compliance can be required, it thought the priority list would give the individual physician a guide to go by. The list also will be stressed to the public in an effort to gain its cooperation.

Recommendations

The special advisory committee to the Division of Health believes that although an epidemic of Asian influenza may develop in this area during the fall and winter months, there is no occasion for panic.

Except for occasional complications which might occur in cases of very young, aged or debilitated persons, the disease is mild and requires no intensive medical care.

The committee recommends that uncomplicated cases be cared for at home, as the safest and most effective method of treatment. They point out that a simple case of influenza is more likely to run into serious complications in the hospital through unavoidable cross infections.

Even should complications occur in a case at home, modern drugs would be adequate in most instances to treat the disease without hospitalization.

The committee urges the Division of Health and all interested agencies to work together in informing the public of these facts and in asking doctors and hospitals to establish firm hospital admission policies that would allow only Asian influenza cases *with complications* to be hospitalized.

Asian influenza vaccine is being manufactured with all possible speed, but it will not be available at this time for all who would like to be immunized.

Therefore, in the interests of health and the public safety, the advisory committee to the Division of Health recommends that a system of priorities be established to assure an equitable distribution of available vaccine to persons engaged in essential services or those whose life and health might be jeopardized by the disease.

It is urged that full explanation of reasons for these priorities be given to the public, so that its full cooperation may be secured. Unless the public assumes its share of this responsibility, essential health services could be crippled and the entire community disrupted.

Therefore, the committee recommends the following priorities:

1. Medical and supportive personnel actively engaged in the case of patients.
2. (a) Public Health personnel.
   (b) Inactive personnel trained in the care of patients who would be available for duty in sonnel, and volunteers of the American Red the case of an epidemic.
   (c) Training, recruiting, and other essential personnel, and volunteers of the American Red Cross, who are certified by Red Cross to receive vaccine.
3. Police, firemen, prison guards, attendants, and caretakers of eleemosynary institutions, and the national guard.
4. Essential community services, such as public utilities and sanitation.
5. Persons with tuberculosis and other who in the opinion of the physician constitute a special medical risk.
6. Since other basic community services vary from place to place it is recommended that each community establish advisory committees broadly representative in nature to consider which additional groups are deemed necessary to maintain services within the community.

It was decided that Dr. Hardwicke should be the person to call for the "advisory committees" mentioned in No. 6. He would do it when, and if, he thought one was needed.

Supply of Vaccine

It seems Missouri is to receive 2.5 per cent of the national supply. So far about 25,000 cc. have been received by Missouri druggists. Dr. Hardwicke indicated he would seek the cooperation of the six licensed manufacturers concerning distribution of the vaccine. Ideally, it would go out in small quantities to all doctors ordering it, rather than large shipments to commercial establishments and so on. The drug houses now hope to have produced 85 million cc. by the end of January. This is slightly above the earlier predictions.

Recommended Dosage

Pre-school children (3 months to 5 years)—0.1 cc. intracutaneously or subcutaneously, repeated after an interval of one to two weeks.

For children 5 to 12 years of age—0.5 cc. subcutane-

INTRAMUSCULAR Used to start a patient on his regimen immediately, or for patients unable to take oral medication. Convenient, easy-to-use, ideally suited for administration in office or patient's home. Supplied in single dose vials of 100 mg., (no refrigeration required).

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Hydrochloride
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control, with minimal side effects, over a wide variety of infections - reasons why ACHROMYCIN is one of today's foremost antibiotics.

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ously, repeated after an interval of one to two weeks.

For children of 13 years of age and older, the dose for adults (1.0 cc. subcutaneously in a single injection) may be used.

The statistics available indicate that the shot is about 70 per cent effective. It definitely should not be given to persons with an egg allergy.

The Division of Health plans to have a weekly release on the subject to encourage persons to take their shots. The various organizations will be kept informed through their representatives on the advisory committee.

The Council disapproved suggested copy for an Asian flu brochure to be distributed by Blue Cross-Blue Shield channels. Instead they adopted a statement prepared by a special committee, that could be used if any organization so desired. The statement is as follows:

"An epidemic of Asian influenza may develop in this area during the fall and winter months.

"The disease is generally mild and requires no intensive medical care.

"Should symptoms of the disease appear—they are those of sore throat, fever, general aches and pains and a feeling of fatigue—don't be alarmed. Go to bed. Call your physician."

The committee consisted of Drs. Hardwicke and Dowell, Mr. Skinner, Mr. Logan and Mr. Schneider. A motion to adopt the committee's statement was made by Dr. Tillman, seconded by Dr. Stuart, and unanimously approved.

On motion of Dr. Tillman, the Council also decided to send Dr. Allen's report to all the doctors by a special mailing. It is to be accompanied by a covering letter discussing the many problems, such as why the doctors can't get the vaccine, how to handle the problem with their patients, and so on. The covering letter also will extract part of Dr. Hardwicke's approved press release.

Mr. Logan discussed what the October issue of Missouri Medicine would have on Asian Flu.

Field Secretary's Report

Mr. McIntyre presented a report on present hospital construction information over rural Missouri, the majority of which are making use of federal funds available through the Hill-Burton act. He discussed special meetings which he attended recently, among these the meeting of State Committee for National Farm-City Week, the P. R. Conference of the A.M.A., and School-Health Workshops, along with a number of regular county society meetings in Missouri.

He reported that ten students out of 33 seniors at the University of Missouri School of Medicine have elected to participate in the Preceptorship program.

He also reported that 25 physicians have located in rural Missouri communities during 1957 to date.

Mr. McIntyre reported that some communities where hospitals are being built with local funds, that the physician had been asked for large donations, somewhat out of line with donations by other local sources.

He also urged the county medical societies as well as the State Association to work with the Woman's Auxiliary more closely and urged the doctors to study what is going on around the state in medical public relations and other organizational activities and help to promote those which seem sound and effective.

Study of Kansas City Tornado

The report of the Committee on Civil Defense, considered by the Council at the June meeting, contained a recommendation that a study be made of the type of medical care rendered and the handling of patients involved in the recent tornado near Kansas City. It was suggested that the study be made by the State Division of Health. The acting Director of the Division of Health is unable to make such a study because of lack of funds.

On motion of Dr. Stuart, seconded by Dr. Creech, it was agreed to notify the MSMA Committee on Civil Defense that the Division of Health would be unable to make the study.

Nursing Homes and Hill-Burton Program

Dr. Hardwicke reported on the new nursing home law in Missouri. He stated that plans have been approved and money allocated to build 856 additional beds for nursing home patients. The number of older people is increasing rapidly and much planning has to be done to see that the problem of facilities for them will be adequate in the future.

It was pointed out that responsibility for caring for the chronically ill and the aging should be put back into the local community.

Dr. Hardwicke reported that a satisfactory arrangement has been worked out with one or two of the state mental hospitals to transfer nursing home patients who are mentally ill in exchange for mental hospital patients who require only nursing home care.

It is his opinion that a factual analysis should be made of the present allocation of Hill-Burton funds to determine whether more of it should be assigned to erection of institutions for chronically ill rather than acutely ill persons.

He brought up the need of securing greater cooperation from the medical profession relative to periodic visits to nursing homes to be made by physicians. He agreed to have prepared a factual article for publication in Missouri Medicine which will outline the nursing home law and the responsibilities of the medical profession in relation to it.

On motion of Dr. Francka, seconded by Dr. Dowell, it was agreed that the Association go on record as favoring a study of the Hill-Burton law and its present application in Missouri.

Franklin-Gasconade-Warren County Medical Society Petition

Mr. O'Brien presented a petition from the Franklin-Gasconade-Warren County Medical Society to transfer from the Fourth Councilor District to the Fifth Councilor District, as follows:

"Whereas, The Franklin-Gasconade-Warren County Medical Society has passed a resolution by unanimous vote to submit this petition to the Missouri State Medical Association, and

"Whereas, This action was taken because of the greater interest in the activities and professional programs of a post-graduate nature being offered by the University of Missouri Medical School, and

"Whereas, Two of the Counties concerned were formerly a part of the Fifth and were transferred to the Fourth Councilor District at the time of hyphenation of the Society, and

"Whereas, There is no opposition or known reason to prevent this action,

in acne

"results were uniformly encouraging"[1]

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Sudsing, nonalkaline antibacterial detergent—nonirritating, hypoallergenic.

The acne skin that is "surgically clean" is the one most likely to clear completely. Hodges[1] found that standard acne treatment usually results in "mediocre success" for most patients. *The addition of pHisoHex® washings to standard treatment produced results that far excel any obtained previously.*

pHisoHex, a powerful antibacterial skin cleanser containing hexachlorophene, removes oil and virtually all the bacteria from the skin surface.

For best results prescribe from four to six pHisoHex washings of the acne area daily.

1. Hodges, F. T.: GP, *14*:86, Nov., 1956.
pHisoHex, trademark reg. U. S. Pat. Off.

Winthrop LABORATORIES
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"Therefore, The Franklin-Gasconade-Warren County Medical Society respectfully present this petition to the Council and the House of Delegates of the Missouri State Medical Association for approval and transfer of the said Society from the Fourth to the Fifth Councilor District of the Association.

s/ M. S. WEPPRICH, M.D., *President*
PAUL A. BRENNER, M.D., *Secretary*"

After discussion, a motion was made by Dr. Sewell, seconded by Dr. Dowell, that it be referred to a committee of the Council at its next meeting. The following committee was appointed: Drs. Summers, Chairman; Stuart, Creech, Bohrer, Stauffacher and Dr. Muether as ex-officio.

Mental Health

Mr. O'Brien presented the report of the Committee on Mental Health in the absence of Dr. Guhleman who was unable to be present. Following is the report:

"The committee members reviewed the new mental health legislation (S.B. 59 and S.B. 60) passed by the 69th Missouri General Assembly and signed by Governor James T. Blair. This legislation provides that the Director of the Division of Mental Diseases shall be appointed, not by the Governor as in the past, but by a new 5-member State Mental Health Commission, at least three of whose members 'shall be skilled in the treatment of nervous and mental diseases.' The legislation provides that the Director shall be 'a person competent in the field of mental diseases, administration and program planning,' and that his salary shall be up to $25,000 annually.

"The committee members explored possible ways in which they might be of assistance in the new program. After discussion, a motion was made, seconded and passed unanimously that a statement revised in accordance with suggestions of the members be sent, after approval by the committee chairman, to the Chairman of the State Mental Health Commission.

"Accordingly, the following letter and statement were mailed September 10 to the Chairman of the State Mental Health Commission, Mr. Powell B. McHaney:

" 'Because of the work you and your fellow commissioners are just beginning has such great potential for the welfare of the people of our state, I wish to take the opportunity to convey the thanks of the Mental Health Committee of the Missouri State Medical Association to the members of the State Mental Health Commission for accepting such an important and challenging undertaking.

" 'The enclosed statement by the Mental Health Committee, which the Committee drafted at a recent meeting in Jefferson City, expresses our feelings toward the program the commission will guide and the problems it faces, as well as our thoughts regarding those steps already taken.'

Statement

"The first step toward improvement in our state's care and treatment of the mentally ill was taken when the 69th Missouri General Assembly passed and Governor James T. Blair signed the new mental health law. The qualifications established by that law for the new State Mental Health Commission and for the new Director of the Division of Mental Diseases to be appointed by the commission point the way toward a truly enlightened and scientific mental health program for Missouri.

"The second step has recently been taken with the appointment by Governor Blair of a well-qualified Mental Health Commission. To its members should go the thanks of Missouri for accepting the great responsibilities and challenges of service on this pioneering state agency.

"Basic to the new legislation and to the new program is the principle that *all* services and *all* functions of the Division of Mental Diseases are to be aimed at a single objective—the most effective treatment and care of persons who are mentally sick.

"We wish therefore, to state again in substance that which we and the House of Delegates of the Missouri State Medical Association stated at the time the new legislation was under discussion and consideration. The intent of the legislation and the purpose of the program can best be effected by placing those services and functions under the direction of one whose education, training and experience have been in the treatment and care of the mentally ill. For that reason, we believe that the post of Director of the Division of Mental Diseases—which is so vital to the well-being of thousands of mentally-sick persons and to the welfare of their families—should be filled by a psychiatric physician of outstanding professional accomplishments.

"Such an appointment will be the third major step toward a new era in the care and treatment of the mentally-ill of our state.

"To determine the needs of the new mental health program and make plans for filling those needs, the Division of Mental Diseases will require a central staff of well-qualified personnel. In order to enable our state's urgently-needed program to make a good start as soon as possible, we urge that a request for an appropriation of funds sufficient for such a staff be included in the Governor's message as such time as he calls a special session of the General Assembly.

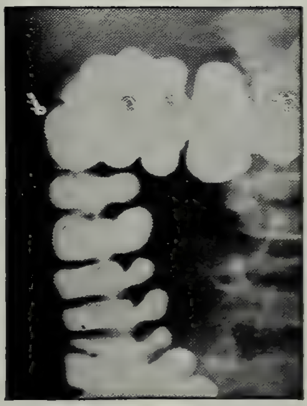
"The Committee members also reviewed the change brought about by the Legislature's passage of S.B. 53, which requires one authorized person's signature, instead of two as in the past, on forms for involuntary commitment of patients to state mental hospitals.

"There was discussion of the benefits allowed by the Blue Cross Plans in St. Louis and Kansas City for patients hospitalized for mental and nervous illness, compared with the benefits for other patients. A motion was then made, seconded and passed unanimously that the Committee present to the Missouri State Medical Association a statement of the Committee's position that it should be the policy of the Missouri State Medical Association that hospital benefits for patients suffering from mental and nervous illness be the same as those for other patients.

"It was suggested that the Committee let the newly-established State Mental Health Association know that the Committee welcomes the association and offers its cooperation."

On motion of Dr. Stuart, seconded by Dr. Perry, the report was approved by the Council.

for a spastic gut*



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Legislation

A letter was received from the State Department of Education regarding the Vocational Rehabilitation program. The letter proposed a meeting between representatives of MSMA and the Missouri Osteopathic Association, with representatives of the Vocational Rehabilitation Section. The purpose would be to discuss changes in regulations regarding examinations and treatment of patients under the jurisdiction of the Agency.

The Council authorized Mr. O'Brien and Dr. Elliott O'Reilly, Chairman of the MSMA Committee on Physical Medicine and Rehabilitation to attend the meeting and report back to the Council.

The joint licensure bill was discussed and on motion of Dr. Sewell, seconded by Dr. Powell, it was agreed to appoint the following committee to meet with an Osteopathic Association committee to discuss possible joint licensure legislation: Drs. Muether, Tillman, Creech, Dowell, Perry, Francka and Sewell.

AMEF

Dr. Murphy presented the report of the Committee on American Medical Education Foundation as follows:

"The purpose of the meeting was (1) to consider and act on request from the Council for recommendation on whether or not the Council should propose to the House of Delegates that an assessment for AMEF be levied against MSMA membership; (2) to map plans for 1957 AMEF campaign in Missouri.

"It was explained that Missouri State Medical Association delegates to the 1957 annual meeting of the American Medical Association had suggested to the MSMA Council that action be taken to assess MSMA members for AMEF along the line followed by Illinois and a few other states. There was a general discussion by Drs. Murphy, Jones, Petersen and Stephenson. Opinions were expressed that an MSMA assessment for AMEF would not be well received by doctors at this time close on the heels of the recently-authorized MSMA dues increase, particularly since the latter action was taken only after considerable debate in the House of Delegates. There were also expressions that an assessment for AMEF would tend to reduce the number and amounts of physicians' gifts to their alma maters and that doctors generally prefer to be able to earmark their contributions. It was pointed out, as a factor in favor of the assessment method, that if all doctors gave to AMEF it would be an added inducement for businessmen to contribute to the cause of medical education.

"Dr. Murphy reported there has been a small, constant increase in AMEF contributions by Missouri doctors since the annual campaign was started about five years ago. In 1956, a total of 229 Missouri doctors and auxiliaries gave $7,484 to AMEF, while 929 physicians contributed $41,993 direct to the medical schools from which they had graduated.

"About one-fourth of all doctors in the state contributed. The Committee members were of the opinion that grass roots support for a mail appeal to MSMA members could be encouraged by asking presidents of all county societies to explain the need for AMEF contributions at their meetings and by inviting editorial backing in County Society Bulletins. The consensus was that the MSMA appeal for contributions should be tied in with the national AMEF campaign.

"The Committee recommended that the MSMA fund-raising activity for AMEF be continued for the present on a voluntary basis.

"The Committee approved the mailing of a letter to all MSMA members asking for AMEF contributions at a time that would fit best with the national AMEF campaign. The members also recommended that suitable materials be sent in advance of such mailing to presidents of all County Societies and Editors of County Society Bulletins asking their support." (The following day Dr. Murphy telephoned Mr. John W. Hedback, Executive Secretary of AMEF. Mr. Hedback stated that the AMEF annual report would be mailed to all former contributors in September, that AMEF would make a direct mail appeal in October to doctors who had given in 1956 and had not contributed in 1957, and that AMEF would in November send out a follow-up letter pointing out the tax-deduction advantages of AMEF Contributions. These would also be AMEF advertisements in certain medical publications during this period. Dr. Murphy according directed the staff to send out the MSMA letter for AMEF contributions in early September and to distribute the materials to the Presidents of the County Societies and the Editors of the County Society Bulletins in mid-August.)

On motion of Dr. Sewell, seconded by Dr. Creech, the report was accepted.

On motion of Dr. Sewell, the thanks of the Council were expressed to Dr. Murphy and his committee for their efforts in behalf of AMEF.

1958 Annual Session

Dr. Janney presented the report of the Program Committee for the 1958 Annual Session stating that the program was shaping up very nicely, that most of the speakers had accepted, although some of the outstate speakers had declined and replacements will have to be decided upon. He mentioned several organizations that were interested in the Wednesday morning program, such as the Heart and Diabetes Associations and also the Civil Defense Committee.

Mr. O'Brien explained that it was deemed advisable by the Committee to start all morning programs at 10:00 a.m. This change will provide more time for reference committee meetings.

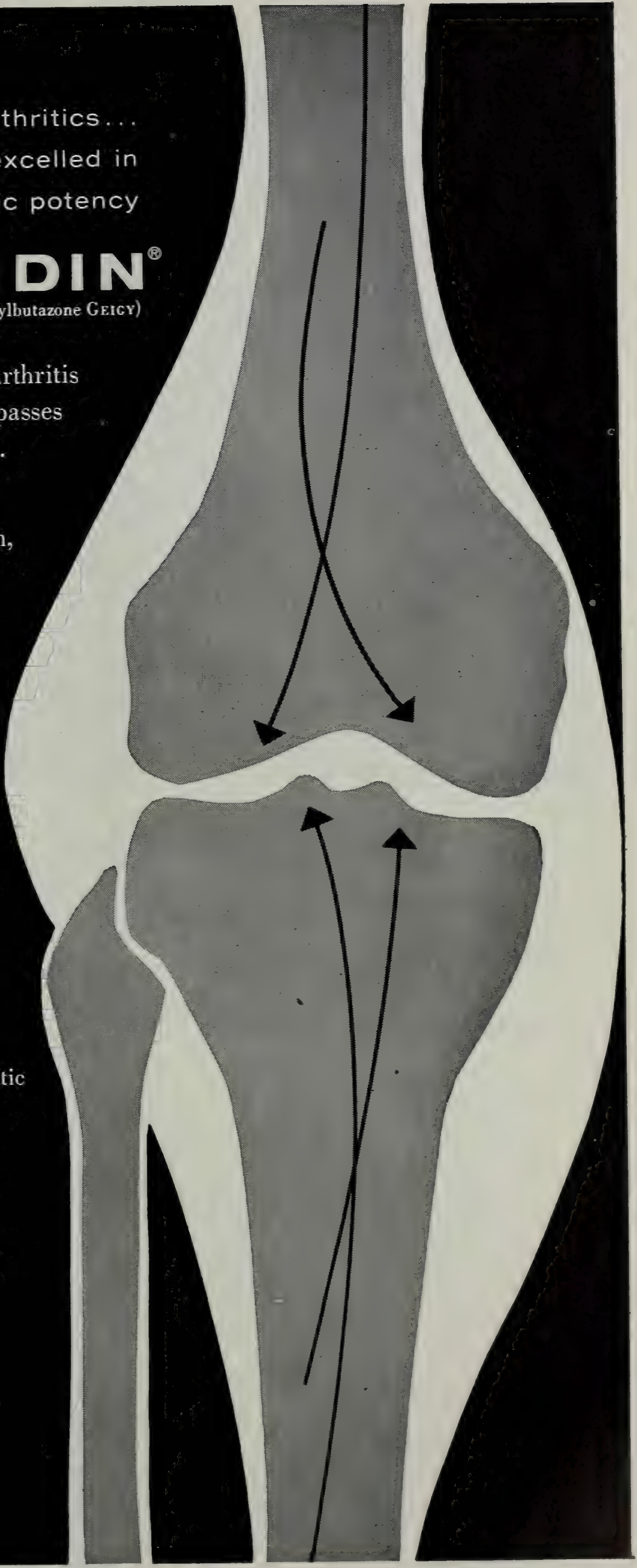
On motion of Dr. Bull, seconded by Dr. Stauffacher, the report of the program committee was accepted.

Budget Committee

The following members were appointed to serve on the Budget Committee: Drs. Simon, Chairman; Sewell, Francka, Perry and Bull, Dr. Muether, ex-officio.

M.U. Award

A letter was presented by Mr. O'Brien commending the action of the Association in presenting the award to the outstanding medical student of the senior class at the University of Missouri in 1957 and requesting consideration be given to extending it to include the other medical schools. After discussion, and on motion of Dr. Bull, seconded by Dr. Sewell, it was decided that the top graduate of the three medical schools in the State of Missouri be given annually a suitable award.



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Prepayment Medical Care Plans

A letter inviting representatives to attend the House of Delegates meeting of Michigan State Medical Society was read. This is of special interest because the Michigan Association will report results of an opinion research study made in Michigan. The study includes direct contact with the public and the medical profession regarding benefits to be included in prepayment plans. The St. Louis Blue Shield plan had authorized Mr. O'Brien to attend. It was requested that a report of the results be sent to Councilors, Officers and others in addition to Blue Shield Board members.

A.M.A. Interim Session

Mr. O'Brien called attention to the A.M.A. Interim Session which will be held in Philadelphia, December 3-6, 1957.

Vendor Program

Mr. O'Brien reviewed the action of the House of Delegates and read the resolution from the Council Report to the House of Delegates at the last Annual Session in regard to the Vendor Program in Missouri. He stated that the medical profession should consider this carefully and decide what their position should be as there is a possibility that this will come up in the Special Session of the Legislature in 1958, if not, it will surely come up in the regular session in 1959. He explained the present Missouri program regarding public assistance.

Dr. Tom Alphin, head of the A.M.A.'s Washington office, discussed the 1957 act of Congress relating to changes in Public Law 880, Vendor Payments and how some of the states are planning to use the new program.

He explained the pending act No. H.R. 9467, known as the Forand bill, which provides hospitalization and surgical care for social security recipients. The cost of these new benefits are to be paid for by increasing the present base of $4200 to $6000 plus an increase in the tax. This bill will be considered by the Congress during 1958.

Dr. Alphin discussed the Jenkins-Keogh bill and the possibility of its passage in 1958, in addition to other highlights pertaining to the National legislative scene.

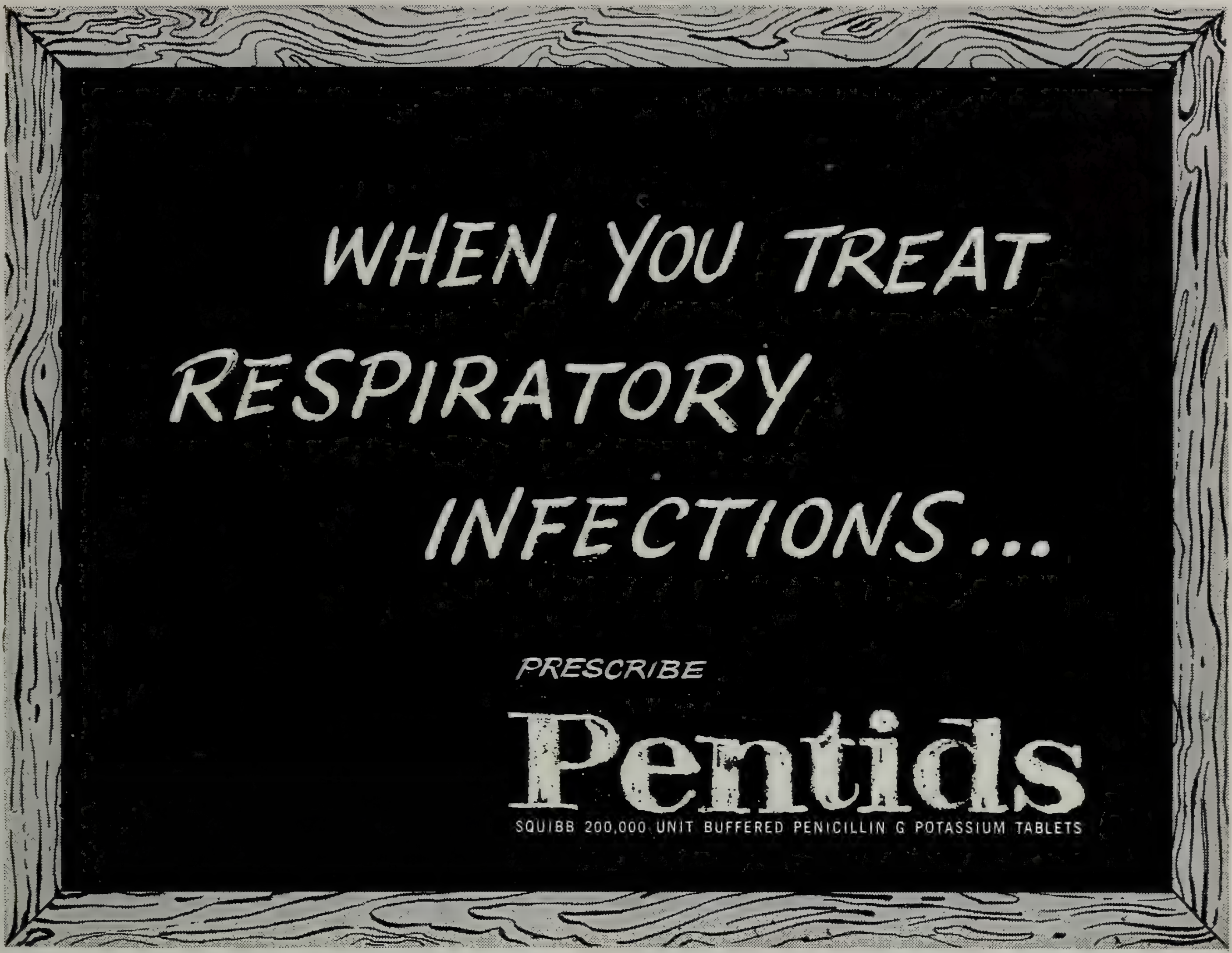
A motion was made by Dr. Tillman, seconded by Dr. Stuart, that the Association go on record as opposing the Forand bill and that the membership of the Association be informed, through MISSOURI MEDICINE, relative to this bill.

On motion of Dr. Sewell, seconded by many, it was decided to send a letter and flowers to Helen Penn expressing the good will of the Council and Officers of the Association.

Meeting adjourned at 2:30 p.m.

HEADS RAILROAD DOCTORS' GROUP

Dr. James R. McVay, Jr., of Kansas City recently was elected president of the Frisco System Medical Association. He was chosen at the 50th annual meeting of the physicians affiliated with the railroad. The meeting was held in St. Louis. Dr. McVay will preside at the next annual meeting to be held in Kansas City in October, 1958.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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met September 12 at the Strand Hotel, Chillicothe. There were 26 members, 16 Auxiliary members and four guests present for the meeting, including Drs. John R. McDaniel of St. Joseph and Wilber B. Spalding of Plattsburg. After an enjoyable dinner, the guests were introduced and the Auxiliary retired to their meeting.

The scientific program was presented by Dr. Henry C. Willumsen of St. Joseph. He discussed "Obstetrical and Gynecological Difficulties." It was an excellent presentation of an interesting subject and was followed by questions and discussion.

The minutes of the last two meetings were read and approved.

E. A. Duffy, M.D., *Secretary*

Clay County Medical Society

The Clay County Medical Society met in regular session at the new Student Union building at William Jewell College, Liberty, September 24. Wives and guests were present for a dinner meeting.

The new facilities at William Jewell College proved to be ideal for our meeting. The society wishes to extend its thanks to Mr. E. W. Holzapfel, our executive secretary, and to the administration of the college for allowing us to meet there. We hope to hold future meetings in Liberty at the college.

Dr. Michael Bernreiter of Kansas City, Kansas, presented the scientific program, "The Electrocardiographic Diagnosis of Myocardial Infarction." Dr. Bernreiter's grasp of the subject enables him to present it in a clear, concise manner which makes it easy to understand and extremely practical.

Drs. Maxwell Day, Daniel Aks, Donald H. Morrison and Lacy M. Roberts were admitted into active membership in the Clay County Medical Society.

S. O. Schroeder, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

BERNARD L. MURPHY, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

The Chariton-Macon-Monroe-Randolph County Medical Society held its September dinner meeting at the Woodland Hospital, Moberly, September 12.

The scientific program for the evening was presented by Dr. Hector Benoit, Kansas City. He spoke on "Surgery of Pulmonary Emphysema."

Robert H. Young, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

The Jefferson County Medical Society held a regular meeting on Tuesday night, September 17, at Jefferson Memorial Hospital. The meeting was called to order at 8:30 p.m. by the president, Dr. Karl McKinstry. A very interesting and instructive talk on "The Care of Injuries to the Central Nervous System" was given by Dr. George Hawkins of St. Louis. His presentation was illustrated with lantern slides.

Preceding the meeting, Mr. Edward Thomson demonstrated the latest developments in parental equipment and parental products, as developed by Mead Johnson & Co.

Following the meeting, light refreshments were served.

Meet With High School Coaches

Greeting "Easy Ed" Macauley

On Friday night, August 23, the Jefferson County Medical Society entertained the high school coaches of the county at Jefferson Memorial Hospital.

Dr. Stanley L. London, team physician for the St. Louis Hawks, and "Easy Ed" Macauley gave interesting talks and showed some movies of the Hawks in action. Following this there was a lively discussion during which the coaches asked to have a doctor present at each football game this fall if it was possible.

Doctors and Coaches Talk It Over

We agreed to make an effort to cooperate with them, although most of us are already pretty well loaded down with other obligations and activities.

This was our second joint meeting with the high school coaches, and we consider it very good public relations as well as being another instance in which

New Chemotherapy

INDICATIONS:

- Rheumatoid arthritis, acute or chronic —with or without adjunctive therapy.
- Spondylitis
- Arthritis associated with lupus erythematosus or psoriasis

THEORY OF ACTION:

Aralen appears to suppress or induce remission of rheumatoid inflammatory processes by inhibiting adenosinetriphosphatase.

HOW SUPPLIED:

Aralen phosphate: 250 mg. tablets in bottles of 100 and 1000.
125 mg. tablets in bottles of 100.

Tolerance:

Aralen is usually well tolerated. Toxic effects are usually mild and to date have been transitory in nature, disappearing completely either on continuance or cessation of therapy or on reduction in dosage.

Gastrointestinal disturbances (e.g. nausea, rarely vomiting, diarrhea, abdominal cramps, anorexia) are frequent manifestations of intolerance. Temporary blurring of vision (due to interference with accommodation) is also relatively frequent.

Pleomorphic skin eruptions (e.g. lichenoid, maculopapular, purpuric), although generally mild, may preclude the use of an optimum dosage schedule. If a skin reaction persists on a reduced dosage schedule, or recurs after reinstitution of treatment with gradually increasing doses, discontinue Aralen till the lesion again disappears and consider resuming treatment with Plaquenil® (brand of hydroxychloroquine).

Less frequently transitory vertigo, headache, lassitude, or neurological disturbances, such as nervousness, irritability, emotional change, and nightmares have been reported. Instances of unexplained slight gradual weight loss as the patient's general health and arthritic condition improved have been mentioned. Occasional instances of bleaching (depigmentation) of the hair have been described.

Although an occasional instance of leukopenia, with normal differential count, has been reported (WBC about 3000), it has not proved troublesome because it has always been reversible on discontinuance, or diminution of the dose. Even spontaneous reversal may occur while full dosage is maintained.

Caution:

Aralen is known to concentrate in the liver and, although hepatic damage has never been reported, the drug should be used with caution in the presence of liver disease. In the presence of severe gastrointestinal, neurological, or blood disorders, the drug should be used with caution or not at all. If such disorders occur during the course of therapy, the drug should be discontinued. Concomitant use of gold or phenylbutazone with Aralen should be avoided because of the tendency of these agents to produce drug dermatitis.

Clinical Comments:

Of fifty patients receiving Aralen therapy, "43 have become really well; that is, they have no stiffness, and any pain that occurs can reasonably be attributed to use of joints affected by secondary degenerative changes. They have no evidence of joint inflammation, but may have a raised erythrocyte sedimentation rate. They have little or no need for analgesics." *Freedman*[3]

"One hundred and twenty-five private patients have been carefully followed clinically and haematologically while receiving well over 200 patient-years of chloroquine [Aralen] therapy. The results are considered good in 70%, one-half of these cases being in remission. Improved work performance, sedimentation rate, and hemoglobin levels paralleled the major objective gain in this 70%. 90% of them remained on chloroquine [Aralen] therapy, half for more than two years. Classical peripheral rheumatoid arthritis, spondylitis, arthritis of juvenile onset, and rheumatoid disease with psoriasis, all appeared to respond about equally well.

"It is suggested that chloroquine comes closer to the ideal for long-term, safe, control of rheumatoid disease than any other agent now available." *Bagnall*[4]

"Out of the 36 rheumatoid arthritis cases we treated . . . favorable results were obtained in 32 cases. *Bruckner et al.*[5]

References

1. Haydu, G.G.: Rheumatoid arthritis therapy: a rationale and the use of chloroquine diphosphate, *Am. J. M. Sc.* 225:71, Jan., 1953.
2. Rinehart, R.E.: Chloroquine therapy in rheumatoid arthritis, *Northwest Med.* 54:713, July, 1955.
3. Freedman, A.: Chloroquine and rheumatoid arthritis, a short-term controlled trial, *Ann. Rheum. Dis.* 15:251, Sept., 1956.
4. Bagnall, A.W.: The value of chloroquine in rheumatoid disease, a four year study of continuous therapy, read at the Ninth International Congress on Rheumatic Diseases in Toronto, Canada, June 23-28, 1957.
5. Bruckner I., and Rosenzweig, S.: Treatment of chronic rheumatoid arthritis with synthetic antimalarials, read at the Ninth International Congress on Rheumatic Diseases in Toronto, Canada, June 23-28, 1957.
6. Cohen, A.S., and Calkins, Evan: A controlled study of chloroquine as an antirheumatic agent, read at the Ninth International Congress on Rheumatic Diseases in Toronto, Canada, June 23-28, 1957.
7. Scherbel, A. L., Schuchter, S.L., and Harrison, J.W.: Comparison of effects of two antimalarial agents, hydroxychloroquine sulfate and chloroquine phosphate, in patients with rheumatoid arthritis, *Cleveland Clin. Quart.* 24:98, April, 1957.

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organized medicine in our area is attempting to meet its community responsibilities. Two other instances are: (1) Cooperation with the Red Cross Blood Bank to see that a physician is present on Blood-Mobile Days. (Dr. Carl Rice, our county health officer, has been most helpful in this regard.)

(2) The staff of the hospital rotates emergency calls so that some doctor is always available. This means that some of us always have to give up our weekends and holidays.

Mr. Ray McIntyre, our State Field Secretary, was present and appeared to enjoy the evening, especially the refreshments, apple pie a la mode.

John F. Rutledge, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held a joint dinner meeting with the Callaway and Montgomery County Medical Societies Monday night, September 16, in the Pilot Lounge of the Air Park Motel, Mexico.

After a social hour and a very enjoyable dinner, the meeting was called to order by Dr. Harry F. O'Brien, President. Dr. O'Brien introduced the guest speaker, Dr. Joseph E. Flynn of St. Louis, who spoke on "The Management of Hand Injuries, including Trauma and Infection." His discussion was illustrated with colored pictures.

The following were present: Drs. William Jolly, Ben Jolly, Lawrence Epple, Kathryn Epple, Harold Lankford, O'Brien, Tom Brewer, Mrs. Hazel Kittleberger, Miss Nancy Drake, Thomas Dwyer, Ed Wallace, Leonard Davis, Glen Kallenbach. The meeting adjourned at 10:00 o'clock.

Lawrence K. Epple, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

A dinner meeting of the West Central Missouri Medical Society and the doctors' wives was held, Thursday evening, September 12, at Jack and Emma's Cafe in Harrisonville.

The evening festivities began with a social hour followed by dinner and then the scientific program under the auspices of the Missouri Academy of General Practice was held. It featured Dr. John W. Cashman, Kansas City, who gave an excellent discussion on "The Medical Treatment of Hypo- and Hyper-Thyroidism."

Robert L. Magee, *Secretary*

Henry, Johnson, Pettis, Saline and Adjacent County Medical Societies

On Wednesday night, September 18, a joint dinner meeting of the Henry, Johnson, Pettis, Saline and Lafayette-Ray County Medical Societies and the doctors' wives was held at the Colonial Dinner House, Clinton.

The program for the evening was a panel discussion on "Current Problems in our Blue Shield and Medicare Programs." It was given by Kansas City Blue Shield representatives, headed by Mr. Tom Collins who is in charge of professional relations.

Following dinner, the ladies attended a separate meeting where a special program was arranged for them.

R. S. Hollingsworth, M.D., *Secretary*
Henry County Medical Society

EIGHTH COUNCILOR DISTRICT

W. W. TILLMAN, JR., SPRINGFIELD, COUNCILOR

Ozarks Medical Society

Thirty-seven persons, including doctors and their wives, attended the dinner meeting of the Ozarks Medical Society at the Hereford House Restaurant, Neosho, Tuesday night, September 10.

The scientific program for the meeting consisted of a 90 minute film entitled "Cancer of the Breast and Colon." A lively discussion period followed. Dr. J. R. Carter of Neosho was in charge of this part of the program. During the scientific part of the meeting, the Woman's Auxiliary of the Society met at the home of Mrs. Carter.

Guests who were present included Dr. Renato Souza of Mount Vernon Sanatorium, and Dr. and Mrs. J. T. Harbaugh of Sale Memorial Hospital and Clinic in Neosho. New members present were Dr. F. B. Brown of Aurora and Dr. C. H. Price of Cassville.

A. J. Graves, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

A dinner meeting of the Mid-Missouri Medical Society and the doctors' wives was held at the Waukeeka Village, Salem, Thursday night, September 26.

Following a fine dinner, presentations of citations for broadcasting medical society recommended health education programs was made to the managers of radio station KSMO at Salem and station KTTR at Rolla. Dr. B. J. Bass of Salem, president of the society, made the presentation. These citations were from the Bureau of Health Education of the American Medical Association which furnished a series of transcription programs to the stations.

The scientific program for the evening, under the auspices of the Missouri Academy of General Practice, was given by Frederick E. Simpson, M.D., Assistant Professor of Pediatrics at the University of Missouri Medical School in Columbia. Dr. Simpson gave a fine talk on "The Child Who Coughs."

M. K. Underwood, M.D., *Secretary*

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner September 25 at the Aztec Club in Willow Springs with the following members and visitors present: Drs. A. T. Walker, Rollin H. Smith, H. W. Miller, M. B. Perkins, D. E. Tiffany, A. C. Ames, M. L. Fowler, J. R. Tarr, C. W. Cooper, J. L. Spears, R. W. Denney, J. N. Wiles and John W. Polk of Springfield and the wives of several physicians.

After dinner, the ladies went to the Perkins' home while the meeting was held.

(Continued on page 1086)

HELP ASKED ON LEUKEMIA-MONGOLISM

Studies conducted by two Minneapolis researchers indicate that leukemia and Mongolism may have a "common denominator." Drs. William Krivit and Robert A. Good asked all doctors to report any simultaneous cases of the two diseases seen in small children during 1956 and 1957.

Writing in the September *Journal of Diseases of Children,* the researchers reported on a nationwide study which indicates that the simultaneous occurence of leukemia and Mongolism is much more frequent than can be explained by chance alone. In fact, during a 4-year period, the actual occurrence of these two unusual diseases was approximately three times greater than that which might have been expected by chance.

The survey was prompted by scattered reports of the diseases occurring together. In the years 1952-55, at least 34 cases of simultaneous leukemia and Mongolism occurred in American children 4 years and younger. The maximum number of cases to be expected by chance alone was 12.3 for the 4-year period, according to Drs. Krivit and Good. The likelihood of 34 cases occurring by chance during four years would be less than once in 1,000 times, they said.

Of perhaps greater significance are the six cases of leukemia-Mongolism reported during the first half of 1956. This is almost half of the theoretical total of 12.3 cases expected to occur in any four years, according to the doctors' calculations.

If similar figures are found for the 1956-57 period, the findings of this study would be even more convincing, the authors said. For this reason, they asked physicians to report all such cases to them. The two researchers are associated with the Variety Club Heart Hospital, University of Minnesota, Minneapolis.

WHAT ODOR TO PRINT IN?

Medical journals may appeal to a second sense soon.

The Printing Industries Association, Inc., has reported it is possible to include fragrance in printing, and "soon every newspaper, trade publication and consumer magazine may have its own identifiable odor."

"Men's magazines can smell of pine or woodsmoke; fashion magazines can have a fragrance of Tabu or Chantilly; and farm journals can reek of new-mown hay."

Among printing aromas available are country smoke, fresh cut grass, blackstrap molasses, butterscotch, pickles, apple pie, coffee, tea and chocolate, and may soon add an antiseptic smell for medical journals.

HIGHWAY HYPNOSIS A PROBLEM

Highway hypnosis, rather than muscular exhaustion, causes the same-direction turnpike wrecks, according to Matthew Sielski, safety and traffic engineer of the Chicago Motor Club.

Highway hypnosis comes from hours of monotonous driving, he said, and urged that highway planners design monotony out of the superhighways of the future. He also recommended better educational programs "to inform motorists of the perils facing them."

LABEL CANCER PILLS A FRAUD

The United States Food and Drug Administration has issued a warning to the public about the worthlessness in the Hoxsey cancer pills. The administration said it has not found a single verified cure of internal cancer effected by the Hoxsey treatment.

The ingredients of the pills are: licorice, red clover blossoms, burdock root, Stillingia root, berberis root, poke root, potassium iodide, cascara sagrada, prickly ash bark and buckthorn bark.

A government attorney said the pills cost $1.55 a thousand. He added that patients pay an average of $400 for the treatment, and the Hoxsey clinic in Portage, Pa., made $200,000 profit last year.

The government is seeking to bar the clinic from dealing with out-of-state patients. Hoxsey, who is not a doctor of medicine, also operates a clinic in Dallas, Tex. A year ago the government seized ½ million of the pills, charging they were worthless in cancer treatment and were misbranded.

The FDA said Hoxsey has been convicted four times, three in Illinois and once in Ohio, for practicing medicine without a license. By Hoxsey's own statement, his formal education ended with the 8th grade.

The government agency also has received reports of deaths which occured after surgery was forsaken for the Hoxsey treatment, while the cancer was still operable and where surgery promised excellent prospects of cure.

Dr. Henry M. Hardwicke, acting director of the State Division of Health, also recently issued a public warning concerning the Hoxsey cancer fraud.

ANNOUNCE NEW HEART DEVICE

A new electronic instrument to revive the heart holds the promise of eliminating the need for thoracotomy, according to Government officials who announced the invention.

Department of Commerce officials said the "simple, compact, safe and reliable" instrument was developed by the Air Force Aero Medical Laboratory. As yet, the device has been used only on animals.

According to the announcement, the instrument is effective both in restoring heartbeats after a complete standstill or for strengthening the beating of a feeble heart.

The unit has two hand-held electrodes which, held to the chest, send an electrical charge to the heart.

DEEP FREEZE FOR WHOLE BLOOD

Deep freezing whole blood may prove to be the answer to a way to keep blood fresh indefinitely. The new technic, developed at the Naval Medical Research Institute, could well be as significant as the development of blood plasma and blood banks before World War II, in the view of many authorities.

The new method should make it possible to store whole blood for years. The technic was developed by Dr. Harold P. Merryman and Emanuel Kafic, a technician, at the biophysics division of the institute at Bethesda, Md. The research was sponsored by the Office of Naval Research.

NEW MEMBERS

Benson, Leo J., Jr., M.D., 217 College, Kennett. Dunklin County Medical Society.

Caldwell, Jacob D., M.D., 223 South Third Street, Hayti. Pemiscot County Medical Society.

Cooper, Charles S., M.D., 1226 Rialto Building, Kansas City. Jackson County Medical Society.

Denninghoff, James C., M.D., 7288 Zephyr Place, Maplewood. Boone County Medical Society.

Duckworth, John K., M.D., 223 South Third Street, Hayti. Pemiscot County Medical Society.

Eversman, George H., M.D., 830 Argyle Building, Kansas City. Jackson County Medical Society.

Houck, George W., M.D., 2625 West Paseo, Kansas City. Jackson County Medical Society.

Morrison, Donald H., M.D., Medical Department Ford Motor Company, Claycomo. Clay County Medical Society.

Neuman, James W., M.D., Moore Building, Nevada. West Central Missouri Medical Society.

Stockwell, Morgan U., M.D., 1630 Professional Building, Kansas City. Jackson County Medical Society.

Swafford, M. R., M.D., Cardwell. Dunklin County Medical Society.

DEATHS

Lemoine, Albert N., M.D., Kansas City, a graduate of University of Kansas School of Medicine, 1915; honor member of Jackson County Medical Society; aged 73; died August 30.

Ryan, Linus M., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1912; honor member of St. Louis Medical Society; aged 70; died September 12.

Sophian, Abraham, M.D., Miami, Florida, a graduate of Cornell University School of Medicine, 1906; honor member of Jackson County Medical Society; aged 73; died September 19.

Uhlemeyer, Henry A., Sr., M.D. a graduate of the Missouri College of Homeopathic Medicine, 1900; honor member of St. Louis Medical Society; aged 79; died September 8.

West, William D., M.D., Mendon, a graduate of St. Louis College of Physicians and Surgeons, 1893; honor member of Chariton-Macon-Monroe-Randolph Counties Medical Society; aged 88; died August 24.

Councilor District News

(Continued from page 1084)

Dr. Polk spoke and showed films on "Masses in the Chest." He predicted that operations for their removal will soon be as common and with little, if any more, difficulty or danger than those now when performed on the abdomen.

The minutes of the last meeting were then read and approved, Dr. Miller then discussed sponsoring an essay contest in the schools on the subject of socialized medicine. It was voted to approve such a contest. The meeting was adjourned.

Meeting of August 28

The South Central Counties Medical Society met for dinner Wednesday night, August 28, at Harry's Steak House in West Plains. The following members and visitors were present: Drs. R. W. Denney and A. C. Ames of Mountain Grove, M. L. Fowler and J. N. Wiles of West Plains, D. E. Tiffany of Mountain View, H. W. Miller of Willow Springs, C. W. Cooper of Thayer, A. T. Walker of Mammoth Springs, Ark., and David Thomasson of Springfield and the wives of several doctors. Mrs. Rollin H. Smith of West Plains also attended.

After dinner the ladies went home with Mrs. Fowler while the business portion of the meeting was held. Dr. Thomasson spoke quite at length on polio, meningitis and other similar diseases. The minutes of the last meeting were read and approved and the meeting was adjourned.

A. C. Ames, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Dunklin, Pemiscot, Butler-Ripley-Wayne and Semo County Medical Societies

A joint dinner meeting of the Dunklin, Pemiscot, Butler-Ripley-Wayne and Semo County Medical Societies was held Wednesday night, September 25, at the Cotton Boll Hotel, Kennett.

An enjoyable social hour preceded a bountiful smorgasbord dinner after which an interesting and informative scientific program was presented. This program consisted of a panel discussion on "The Latest Developments in the Management of Coronary Disease," by three physicians from the cardiovascular section of St. Louis University Medical School. They were: Drs. C. G. Vournas, John J. Hammond and E. R. Reh. They presented case discussions and at the same time requested participation by members of the audience through comments or questions. Members of the Academy of General Practice who attended this meeting received two hours of Category I Postgraduate Credit for this scientific presentation.

The next meeting of this group will be held in Kennett on Tuesday night, November 19. The scientific program will be given by Dr. Ned D. Rodes, chief surgeon, Ellis Fischel State Cancer Hospital and Dr. Richard Johnson, chief pathologist at Ellis Fischel. Dr. Rodes will discuss "The Management of Gastrointestinal Tract Hemorrhage from the Surgical Viewpoint" and Dr. Johnson will speak on "Operability of Breast Cancer."

E. L. Spence, M.D., *Secretary*
Dunklin County Medical Society

Mineral Area County Medical Society

James L. Donahoe, M.D., Senior Instructor in Pediatrics at St. Louis University Medical School gave the scientific program at the Mineral Area County Medical Society meeting Thursday night, September 26, in the clinic building of the State Mental Hospital in Farmington. Dr. Donahoe discussed "Rheumatic Fever and Rheumatic Heart Disease."

R. A. Huckstep, M.D., *Secretary*

why wine in digestive disorders?

Although the effects of wine on the digestive system have been discussed for centuries, it has been only in recent years that many of its physiological attributes have been determined.

WINE AND THE SALIVARY GLANDS—The increase in salivary flow following a moderate intake of wine is apparent almost immediately,[1] such increase being attributed to direct sensitization of secretory nerve endings.[2]

WINE AND GASTRIC SECRETION—With a pH averaging 3.2, wine resembles gastric juice more closely than does any other natural beverage. Its tannins, organic acids and salts of these acids serve as buffering agents to maintain this pH. Relatively low in content of alcohol, table wine has been found to stimulate gastric secretion and induce production of gastric juice high in hydrochloric acid, sodium chloride, rennin and pepsin.[3]

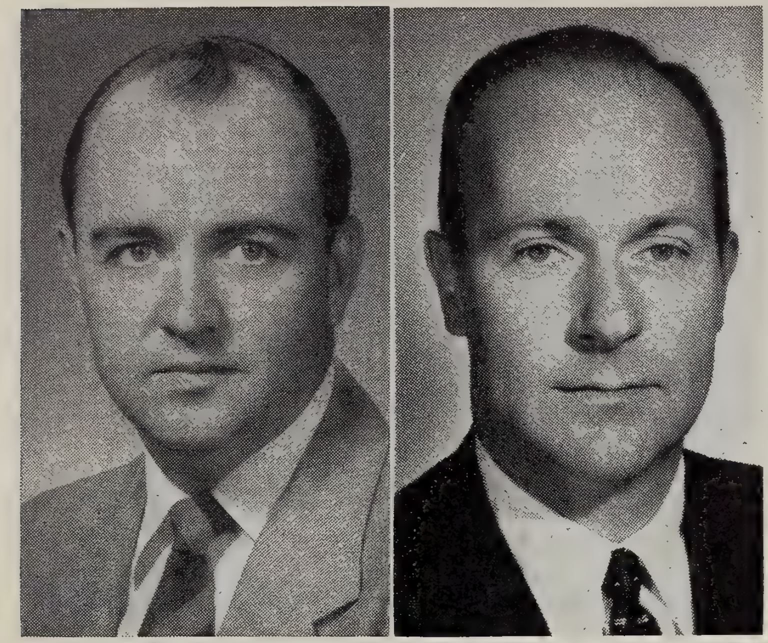
WINE AND THE DIGESTIVE TRACT—With its low concentration of alcohol, wine in moderate consumption has been found to induce a marked increase in biliary flow.[4] This, together with increased function of pancreatic enzymes, may thus encourage better digestion of fatty foods.

THEREFORE—IN THE TREATMENT OF DIGESTIVE DISORDERS—Wine is being widely recommended in the treatment of anorexia, hypochlorhydria without gastritis,mucous colitis, spastic constipation and diarrhea, and in digestive disorders stemming from emotional tension and anxiety.

These and other modern ℞ uses for wine are discussed in the brochure "Uses of Wine in Medical Practice." For your free copy write—Wine Advisory Board, 717 Market Street, San Francisco 3, California.

1. Winsor, A. L. and Strongin, E. I.: J. Exper. Psychol. 16:589 (1933).
2. Beazell, J. M., and Ivy, A. C.: Quart. J. Studies on Alc. 1:45 (1940).
3. Faroy, G., and Weissenbach, R. J.: Hôpital 25:306 (1937).
4. Okada, S.: J. Physiol. 49:457 (1915).

NEW FIELD MEN FOR BLUE SHIELD



Philip E. Foley *William J. Brennan*

Philip E. Foley, Farmington, Mo., and William J. Brennan, St. Louis, have been appointed to newly created positions as special field representatives for the St. Louis Blue Shield medical-surgical protection plan, according to an announcement by Dr. Walter S. Sewell of Springfield, Blue Shield president and president of the Missouri State Medical Association.

As special field representatives, Foley and Brennan will be responsible for providing assistance to the community, the medical profession and the public in interpretation of the services, organization, operation and policy of Blue Shield, Dr. Sewell explained.

Services of the special field representatives, who will make their headquarters in St. Louis, will be available to interested public groups, medical organizations, hospital staffs and individual physicians throughout the greater part of Missouri, Dr. Sewell said.

BAR SALE OF "WARSENE CAPSULES"

The Federal Trade Commission recently prohibited the Warson Products Corp. of St. Louis from offering "Warsene Capsules" for sale as an effective treatment for arthritis pains.

RUSSIAN VACCINE FOR ASIAN FLU

Samples of an Asian flu vaccine have been brought to the United States by a group of American medical officials returning from a 4-week tour of Russia.

The Russians had a flu epidemic in April and May this year, according to the spokesman for the group, Dr. Malcolm Merrill, director of public health for the state of California.

Dr. Merrill said the Russian epidemic occurred about the same time the Asian flu was first detected by Westerners in Hong Kong. The Russian doctors, he said, have identified the flu as a separate virus strain. The Russians claimed to have developed an effective vaccine to combat the disease, and the group brought samples back with them.

The 4-member team of medical officials returned from the Soviet Union with the impression that Russia emphasizes quantity, not quality, in their training of doctors.

"All their medicine, including the physicians, health centers, sanitariums, and so forth, is definitely not as good as what we have," according to their statement.

There are about 320,000 physicians in Russia today, according to Dr. Merrill, and a great deal of medical activity. The Soviet schooling system tries to "cram into 16 years" the same amount of education and training requiring 21 years here. Nurses also have shorter educational programs.

SCIENTISTS DISCUSS SECRET OF LIFE

One American biochemist believes that "we will see life created in the laboratory within our lifetime."

This statement, by S. L. Miller of Columbia University, followed an international symposium on the secret of life held in Moscow recently. The meeting was attended by 40 scientists from 17 countries.

Nobel prize-winner Linus Pauling commented, "The meeting has been fruitful in several details" . . . although "nothing startling new was brought out." Pauling is a chemist from the California Institute of Technology at Pasadena.

"It's amazing how closely scientists in their work all over the world parallel each other," he said.

Soviet Academician A. I. Oparin emphasized that scientists must co-operate to find the solution to life's secret. The answer, he said, "cannot be supplied by one man, one country or one type of scientist."

After the conference in Moscow, the scientists visited Leningrad to see Soviet scientific institutions.

MARY POGUE SCHOOL, Inc.

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Catalog on request

G. H. Marquardt, M.D. *Medical Director* Barclay J. MacGregor *Registrar*

27 Geneva Road, Wheaton, Illinois (Near Chicago)

frozen shoulder

Bursitis and tenosynovitis are new terms to homemakers, but they are not uncommon sequels to overexertion. Early antirheumatic therapy is to be encouraged in the treatment of these conditions, as it is in more serious rheumatic conditions, to alleviate pain and prevent progression of the disorder. With adequate therapy the prognosis of bursitis in its acute stage is good. Delaying therapy may result in extension of the inflammation and gross anatomical changes that tend to incapacitate the patient.

SIGMAGEN provides doubly protective corticoid-salicylate therapy—a combination of METICORTEN® (prednisone) and acetylsalicylic acid providing additive antirheumatic benefits as well as rapid analgesic effect. These benefits are supported by aluminum hydroxide to counteract excess gastric acidity and by ascorbic acid, the vitamin closely linked to adrenocortical function, to help meet the increased need for this vitamin during stress situations.

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Missouri's Waters Still Among Most Polluted in Nation

Missouri's attack on the water problem has been much in the news lately, and from some stories you might think the state had the problem licked. Actually, St. Louis and Kansas City are among the 10 most polluted areas in the country because of inadequate sewage treatment facilities, and of all Missourians served by sewers, only about one-third have adequate sewage treatment plants.

However, some Missouri towns are making headway, and it is these isolated examples which give a distorted picture of the true situation.

Not long ago the United States Public Health service announced that Missouri was a leading state in the nation last year for the number of sewage treatment projects approved under the federal program of grants for water pollution control. Twenty-three such projects were approved. Only California equalled this number.

The towns which got approval of their projects are: Trenton, Higginsville, Stover, Carthage, Blue Springs, Fornfelt, Ironton, Troy, Belle, Stanberry, Springfield, Hornersville, Kahoka, Steelville, Union, Lincoln, Center, Marshall, Marceline, Tipton, Humansville, Thayer and Wellsville.

Under this plan, the federal government pays $250,000 or 30 per cent of the cost of a local sewage project, whichever is less. In Missouri last year, federal grants totaled $1,059,775—matched by $4,378,190 in local funds. During the current fiscal year, another 17 projects will be certified, amounting to $1,060,950. Another 11 cities have requests on file which will cost an additional $1,716,929 when the federal money becomes available.

The progress made by these communities is certainly encouraging. But Missouri's over-all position, in relation to the rest of the nation, can be judged by the fact that Missouri ranked 12th in the dollar volume of sewage plant construction.

A strong reminder of the state's position as a whole was brought out by Jack K. Smith, chief of the water pollution control section, Bureau of Public Health Engineering, Missouri Division of Health. Smith took part in a panel discussion of river pollution at the annual joint meeting of the Missouri Water and Sewage Conference, and the Missouri Section of the American Water Works Association which met recently in St. Louis.

Smith pointed out that at least 189 communities in Missouri—not counting St. Louis and Kansas City metropolitan areas—need new sewage treatment facilities or additions to their existing plants. He said construction of these facilities simply is "not keeping pace with residential construction." Furthermore, only "three-fourths of the people in the state are served by sanitary sewers."

The dangers were outlined by Smith. He stressed that water pollution has a direct effect on health, and many newspapers carried his comments on how this could aid the spread of such diseases as typhoid fever, dysentery and, possibly, infectious hepatitis. He also said "pollution renders many streams unfit for recreation uses because of odors and unsightliness," in addition to the damage to fish and other wild life.

The present situation has been aggravated by recent droughts which caused low river flows and greater pollution in the Missouri River. This, according to Smith, "affected the water supply for 534,000 persons." He warned that further problems will occur "until such time as adequate treatment works have been installed along the river."

From the standpoint of the state's agriculture, Smith pointed out that sewage polluted waters cannot be used for irrigation. However, Smith praised the action taken by many cities and industries along the Missouri and Mississippi Rivers in constructing treatment facilities.

A new state law, passed by the last Legislature, also will aid the pollution abatement program by providing for "prevention, regulation and penalties for failure to comply," according to Smith. A joint Senate-House committee of the Legislature also has been appointed to study the over-all problem of water resources. Much of our progressive state legislation has come as a result of such study committees.

Smith predicted that continued progress will be made in the next few years to "relieve the stigma" placed on the state by a survey which indicated that "two of the 10 most polluted areas in the United States existed in Missouri."

NEW PHONE FOR TOTALLY DEAF

A special telephone has been developed by a Highland Park, Ill., laboratory that makes it possible for the totally deaf to "hear" a phone message.

Known as the tachophone, the device uses a dual touch and sound system. The person using the phone "hears" the message by feeling dial clicks with his finger.

The tachophone was invented by Robert Oakes Jordan who heads a laboratory bearing his name. The original unit was built for Richard Kinney, 34 years old, an instructor at the Hadley School for the Blind in Winnetka, Ill. Kinney is both deaf and blind.

The design of the new instrument has been given to the Illinois Bell Telephone company which has built 12 experimental models.

When Kinney makes a call, he dials a number and asks the person at the other end to dial a special code number. Then the other person calls back, using the code number. Kinney can talk through his phone, and the other person replies by dialing the answer in Morse dot-dash code. Kinney picks up the clicks by touching the exposed diaphragm with his finger. A dash is made by dialing "4" and a dot by dialing "1." The person "talking" to Kinney should know the code, but if he doesn't, Kinney can ask the other person to dial certain numbers with his reply.

As yet the tachophone is used only for out-going calls. However, Jordan is experimenting with a device that will give off a squirt of pine odor when the telephone "rings."

An arrangement somewhat like this already used by Kinney to alert him when his doorbell rings. The bell is linked to a fan which is set in motion when the bell rings. The stream of air tells him the bell is ringing.

Although the tachophone admittedly has limitations, it still is the first device that makes it possible for a deaf person to use the telephone. Bell Telephone engineers hope to be able to convert present sets at small cost, according to Russell Scargle, a Bell official.

From the Medical Schools

WASHINGTON UNIVERSITY

Installation, Election

Dr. Wendell G. Scott, professor of clinical radiology, recently was installed as president of the American Roentgen Ray Society at the Society's annual meeting in Washington. As his presidential address he discussed the effects and proper medical use of X-ray in diagnosis and treatment.

The Roentgen Ray Society, the oldest radiological group in the country, was founded in St. Louis 58 years ago.

Recently Dr. Scott also was elected chairman of the section on radiology of the American Medical Association. Other positions he holds: a consultant in radiology to the Oak Ridge Institute of Nuclear Studies, chairman of the committee on radiology of the National Research Council, reserve consultant in radiology to the surgeon general of the Navy and an associate editor of *The American Journal of Roentgenology, Radium Therapy and Nuclear Medicine.*

Dr. Frank J. Catanzaro, instructor in clinical medicine, recently was elected president of the medical staff at St. Joseph Hospital, Kirkwood, at the annual meeting of the staff.

Honorary Degree

Dr. E. V. Cowdry, director of the Wernse Laboratory of Cancer Research, recently was awarded an honorary doctor of science degree by the Institutum Divi Thomae at Cincinnati, O. The Institutum operates a school for graduate students of sciences.

Meetings

Twelve faculty members participated in the annual meeting of the Mississippi Valley Medical Society held September 25-27 in St. Louis. An exhibit on "Obstructions of the Extrahepatic Bile Ducts" by Dr. Robert W. Bartlett, associate professor of clinical surgery, and one on "Management of Hypertensive Disease" by Dr. Joseph C. Edwards, instructor in clinical medicine, also were featured.

The participants and their subjects included: Dr. James Barrett Brown, professor of clinical surgery, moderator, panel on burns (Electrical and Cathoderay and Atomic Radiation Burns); Dr. Thomas H. Burford, professor of thoracic surgery, "Surgery of Congenital Heart Disease"; Dr. Minot P. Fryer, associate professor of clinical surgery, panel on burns (Post-Mortem Homograft); Dr. John E. Hobbs, associate professor of clinical obstetrics and gynecology, "When Should a Uterine Curettage Be Done?"; Dr. Virgil Loeb, Jr., assistant professor of clinical medicine and of pathology, "Anemia, Its Differential Diagnosis and Management"; Dr. Frank McDowell, associate professor of clinical surgery, panel on burns (Early Grafting of Burns); Dr. Paul F. Max, instructor in clinical obstetrics and gynecology, moderator, panel on obstetrics.

Others who participated: Dr. Seymour M. Monat, assistant professor of clinical obstetrics and gynecology; Dr. Carl A. Moyer, Bixby, professor of surgery and head of the department; Dr. Robert W. Bartlett, associate professor of clinical surgery; Dr. James B. Costen, professor of clinical otolaryngology, and Dr. David Goldring, associate professor of pediatrics.

Dr. John Esben Kirk, associate professor of medicine and director of research in the division of gerontology, recently discussed the nutrition of elderly patients at a meeting of the staff members of the Jefferson Barracks Veterans Administration Hospital.

SAINT LOUIS UNIVERSITY

Meetings and Lectures

Nine members of the faculty participated in the meeting of the Mississippi Valley Medical Society and the 14th annual meeting of the American Medical Writers Association in St. Louis September 25-28.

Dr. Joseph A. Hardy, professor and director of the department of obstetrics and gynecology appeared on a panel on obstetrics. Dr. C. Rollins Hanlon, professor and director of the department of surgery, delivered a paper titled "Diagnosis and Treatment of Constrictive Pericarditis." Dr. Dean Sauer, senior instructor in surgery, appeared on a panel on "The Acute Surgical Abdomen."

Drs. Hanlon and Sauer also participated in a round table discussion with other scientists on the subjects of: rheumatoid arthritis, rectal bleeding, the acute surgical abdomen, pericarditis, new drugs and peptic ulcer. Dr. Peter G. Danis, professor of clinical pediatrics lead a panel on "Chronic Disease in Infancy and Childhood (The Management of the Residual of Encephalopathy in the Infant)."

Scientific exhibitors included: Dr. Willard Bartlett, department of surgery, who won third prize for his exhibit, "The Fate of the Eyes in Graves' Disease" (a 20-year study), and Dr. F. X. Paletta, assistant professor of clinical surgery who presented a study on "Cancer of the Face."

Participating in the American Medical Writers Association workshop were: Dr. James W. Colbert, Jr., Dean, who spoke on "The Contribution Which a Medical School Might Make to Improving Medical Writing in Its Students"; Dr. R. W. Schlesinger, professor and director of the department of microbiology and Dr. John P. Wyatt, associate director, department of pathology. They both spoke on "How Good Are Our Modern Textbooks."

Dr. G. O. Broun, director of the department of internal medicine, spoke September 10 on the "Asiatic Influenza Problem" before the Vanderburgh County Medical Society in Evansville, Ind. He outlined the study program of the World Health Organization.

Dr. Broun's virus laboratory at Firmin Desloge Hospital is one of a number of laboratories in this country and throughout the world collaborating with the World Health Organization.

Dr. V. W. Hollo, assistant in surgery, attended the Congress of International Union of Railway Medical Services held in Paris September 16-21.

Seven faculty members participated in the scientific program of the 50th Annual Meeting of the Frisco System Medical Association held in St. Louis September 12-13. Serving on the scientific program and their topics were: Dr. C. Rollins Hanlon, professor of surgery and director of the department, "Recent Advances of Cardiovascular Surgery"; Dr. Robert V.

Brennan, instructor in urology, "Review of Prostatic Cancer at Frisco Hospital"; Dr. George A. Mahe, Jr., senior instructor in internal medicine, "Experiences With Oral Hypoglycemic Agents"; Dr. Alphonse McMahon, associate professor of internal medicine, "Hypertension"; Dr. William D. Schierman, instructor in internal medicine and Dr. James C. Redington, Jr., instructor in internal medicine, "Jaundice; Physiological Mechanism Involved." Presding over the association sessions was Dr. Grayson Carroll, associate professor of clinical urology, president of the organization.

Appointments

Four new faculty members have been added to the staff. They are: Dr. Anna Marie Conway, instructor in anatomy, formerly teaching assistant in anatomy at the University of Wisconsin; Dr. J. Wendall Davis, senior instructor in biochemistry, formerly associate biochemist in the biology division of the Oak Ridge National Laboratories; Dr. Alfred M. Shideler, assistant professor of pathology, formerly assistant professor of pathology at the University of Oklahoma Medical Center and Dr. Paul A. Young, assistant professor of anatomy, formerly instructor in anatomy at the University of Buffalo. Dr. Young joined the faculty August 15. The other appointments became effective September 1.

UNIVERSITY OF MISSOURI

Papers

Dr. D. K. Meyer, professor, department of physiology and pharmacology, presented a paper entitled "Centrifugal Separation of Free and Bound Glycogen" at the Federation of American Society for Experimental Biology at the University of Iowa, Iowa City, in September. About 600 persons attended.

Dr. Marvin L. Zatzman, assistant professor, department of physiology and pharmacology with Dr. Robert Keller of the department of microbiology, presented a paper, "Disappearance of Bacillus Megatherium Bacteriophage From the Circulation of the Dog" in September at the same meeting. Drs. W. S. Platner, A. W. Merrick, James E. Randall, and Mr. Ferrell A. Purdy of the department also attended.

Appointments

Dr. G. H. Lang, instructor in obstetrics and gynecology, and third year resident. Dr. Lang received his M.D. degree from the University of Texas Medical Branch in 1945.

Dr. W. M. Williams, Jr., assistant instructor in obstetrics and gynecology, and first year resident. Dr. Williams received his M.D. degree in 1955 from the University of Arkansas.

Dr. H. A. McQuade, associate professor of radiobiology. Dr. McQuade received his Ph.D. in 1949 from Washington University.

Name Preceptors

The following physicians have been appointed as preceptors in general practice: Drs. C. W. Croom and C. T. Edmondson, both of Malden, and Dr. F. B. Matteson of Grant City. Other preceptors will be appointed throughout the year.

Gifts and Grants

The National Institutes of Health, Bethesda, Md., have awarded an undergraduate mental health teaching grant of $15,000. The grant will be administered by Dr. Roscoe L. Pullen, dean.

A similar grant of $15,000 to foster undergraduate teaching of psychiatry for nurses was awarded to the University of Missouri School of Nursing.

The National Council to Combat Blindness has awarded a grant of $1,000 to Dr. W. R. Hepner, associate professor of pediatrics, who will make a study of "The Effects of Maternal Hyperoxemia on the Intrauterine Development of the Eye."

The United States Public Health Service made the following grants:

A grant of $6,000 to Dr. F. B. Engley, Jr. with Drs. Keller and Ivey, department of microbiology, for the study of "Klebsiella Pneumoniae and Related Organisms."

One of $25,000 to Dr. J. H. Killough, associate professor, for the study of "Undergraduate Teaching in Heart Disease."

Dr. D. K. Meyer, professor of physiology, department of physiology and pharmacology, received $8,165 for "Continued Studies on Bound and Free Cardiac Glycogen."

Dr. C. S. Anast, assistant professor, department of pediatrics, received $4,910 for the study of "Magnesium Equilibria Between Extracellular Water and the Inorganic Phase of Bone."

One of $2,300 to Dr. J. M. Franz, assistant professor, department of biochemistry, for the study of "Hormonal Control of Tryptophan Peroxidase-Oxidase."

Dr. Grafton Smith, assistant professor, department of surgery, received $11,989 for "Absorption of Water From the Intestine and Gallbladder."

A grant of $6,900 to Dr. T. D. Luckey, professor, department of biochemistry for "Isolation of Growth Factor for Invertebrates."

Dr. H. S. Goldberg, associate professor, department of microbiology, in conjunction with Dr. R. N. Goodman, College of Agriculture, received $15,900 for research on "Public Health Significance of Antibiotic Residues."

Enrollment

For the second time in its history, a full class of 75 students was admitted in the class beginning September 19. Admissions are limited entirely to bona fide residents of Missouri.

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Harmonyl makes rauwolfia more useful in your everyday practice. Two years of clinical evaluation have shown this new alkaloid exhibits significantly fewer and milder side effects than reserpine. Yet, Harmonyl compares to the most potent forms of rauwolfia in effectiveness.

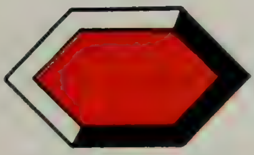
Most significant: Harmonyl causes less mental and physical depression—and far less of the lethargy seen with many rauwolfia preparations.

Patients became more lucid and alert, for example, in a study[1] of chronically ill, agitated senile cases treated with Harmonyl. And these patients were completely free from side effects — although a group on reserpine developed such symptoms as anorexia, headache, bizarre dreams, shakes, nausea.

Harmonyl has also demonstrated its potency and relative freedom from side effects in hypertension. In a study comparing various forms of rauwolfia[2], the investigators reported deserpidine "an affective agent in reducing the blood pressure of the hypertensive patient both in the mild to moderate, as well as the severe form of hypertension." They also noted that side reactions were "less annoying and somewhat less frequent" with this new alkaloid. Other studies confirm that few cases of giddiness, vertigo or sense of detached existence or disturbed sleep are seen with Harmonyl.

Professional literature on this unique rauwolfia derivative is available upon request. Harmonyl is supplied in 0.1-mg., 0.25-mg. and 1-mg. tablets. Abbott

References: 1. Communication to Abbott Laboratories, 1956. 2. Moyer, J. H. et al: Deserpidine for the Treatment of Hypertension, Southern Medical J., 50:499, April, 1957.



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* Trademark for Deserpidine, Abbott

Book Review

THE MORPHOLOGY OF HUMAN BLOOD CELLS. L. W. Diggs, M.A., M.D., Professor of Medicine and Director of Medical Laboratories, University of Tennessee and City of Memphis Hospitals. Consultant in Hematology, Armed Forces Instiute of Pathology, Washington, D. C.; Dorothy Sturm, Instructor, Memphis Academy of Arts; and Ann Bell, B.A., Instructor in Medicine, University of Tennessee. W. B. Saunders Company, Philadelphia and London. 1956. Price $12.00.

This Atlas while, according to the authors, was primarily written for medical students, student technologists and others who, for the first time, are learning about the morphology of normal and pathologic cells; will also be greatly appreciated by the many practicing hematologists who will find it invaluable as a quick reference manual.

The color plates, mainly water color by Dorothy Sturm, are placed before the text for ready reference. These consist of 31 plates which cover the almost complete gamut of normal and abnormal cells. They have, for basis of comparison, been reproduced with an 1800 magnification. These plates, which many of us have seen in the Abbott Company series, are in many ways quite superior to color photographs since they represent only that which the trained eye sees without the many non-essential minutia and artifactual elements found in the best photographs.

The text of the Atlas is arranged in a logical manner proceeding from the progenitor series through the normal cell forms. For each type of cell there is a brief but adequate description. For anyone wanting more there is an excellent table of collateral reading in the index section of the Atlas.

There is an excellent chapter on the ancillary cell forms which include the syncytial cells, mesenchymal cells, histiocytes and the various others. This is indeed a well included chapter since these cells, though occurring in very small numbers, should be recognized. The chapters on abnormal cells of both erythrocytic and leukocytic types are quite readable and comprehensive. They are well illustrated with drawings and photomicrographs.

A separate chapter has been devoted to the lupus erythematosus cell. This chapter gives the basis of the L. E. phenomenon. There is an excellent series of illustrations of the various cells involved. The last two chapters on cells are devoted to pathologic cells of a miscellaneous group. While this field is adequately scanned, it is, per force, of such a nature that the coverage must be augmented by collateral reading.

The last chapter, on techniques and methods, is well written and concise. It includes all the basic techniques for blood film and bone marrow examination. Special methods for L. E. cell preparations and sickle-cell preparations are also included.

This Atlas is a well written, well illustrated and basically sound adjunct to every hematologic library.

The publishers should be congratulated on the spiral type binding used which allows the volume to lie flat on a desk at any page while in use. F.J.C.

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when anxiety and tension "erupts" in the G. I. tract...

IN DUODENAL ULCER

PATHIBAMATE*

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Combines Meprobamate (*400 mg.*) the most widely prescribed tranquilizer . . . helps control the "emotional overlay" of duodenal ulcer — without fear of barbiturate loginess, hangover or habituation . . . *with* PATHILON (*25 mg.*) the anticholinergic noted for its extremely low toxicity and high effectiveness in the treatment of many G.I. disorders.

Dosage: 1 tablet t.i.d. at mealtime. 2 tablets at bedtime. *Supplied:* Bottles of 100, 1,000.

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just two tablets
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for gratifying
rauwolfia response
virtually free from side actions

Rauwiloid®

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LOS ANGELES

Editorials

(Continued from page 1061)

dio industry. The aim is a more careful screening of all advertisements to eliminate "offensive or misleading" material.

This may be even more important if TV advertisers start using the new technic that exposes the viewer to advertising without his realizing it. To accomplish this, the advertiser's name or brand name can be superimposed over the regular picture for only one three-thousandth of a second and still be seen.

In a film studio demonstration, the name of a soft drink was flashed on the screen every five seconds for a fraction of a second. James M. Vicary, the motivation researcher who developed the new process, said those who are thirsty see the commercial, either consciously or subconsciously. He said those who aren't thirsty don't notice the message.

"Invisible sell" was tested for six weeks in a New Jersey movie theater, advertising soft drinks and popcorn. Popcorn sales increased 57.5 per cent and soft drink sales, 18.1 per cent, according to Vicary.

Vicary said the process merely acts as a "reminder" and accelerates an existing desire, but does not create a desire to buy. He said it involves subliminal thoughts, defined as "below the threshold of sensation or awareness."

This problem of the "invisible sell," as well as other aspects of advertising, was discussed in the September issue of *Atlantic Monthly* by Vance Packard, whose new book *The Hidden Persuaders* is currently making quite a splash on the best-seller list.

The magazine points out that advertising budgets have increased five times since 1940. And with this increase has come "Motivation Research" which strives to determine the mental, moral and emotional urges that make people buy.

Packard says in his article "several of the techniques being used on us by certain of the advertising men . . . give cause for concern," and among these, he lists the "invisible sell." He says, "In late 1956 the London *Sunday Times* charged that advertisers had produced a notable rise in ice cream consumption at a cinema in New Jersey during experiments with subthreshold effects. The use of such surreptitious appeals on any substantial basis will raise an ethical question of the most serious nature, particularly if such hidden appeals are used to put across political candidates or points of view."

The potential danger in promoting health and welfare projects is obvious.

Evidence of how far these motivation studies can go, is brought out by a further example. One Chicago agency has conducted a survey on the effect of women's menstrual cycle on the sales of a certain cake mix. The goal was to find a way to engineer one ad that would sell the woman in the "high" phase as well as the woman in the "low" phase. The result was to combine a "new and different" ad pitch for the high-phase woman, with an easy-to-do-pitch for the low-phase woman.

when anxiety and tension "erupts" in the G. I. tract...

IN ILEITIS

PATHIBAMATE*

Meprobamate with PATHILON® Lederle

Combines Meprobamate (*400 mg.*) the most widely prescribed tranquilizer . . . helps control the "emotional overlay" of ileitis — without fear of barbiturate loginess, hangover or habituation . . . *with* PATHILON (*25 mg.*) the anticholinergic noted for its extremely low toxicity and high effectiveness in the treatment of many G.I. disorders.

Dosage: 1 tablet t.i.d. at mealtime. 2 tablets at bedtime. *Supplied:* Bottles of 100, 1,000.

*Trademark ® Registered Trademark for Tridihexethyl Iodide Lederle

Lederle

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optimal dosages for ATARAX,
based on thousands of case histories:

25 *mg. (q.i.d.)*

for these **25** *adult indications:*

TENSION SENILE ANXIETY MENOPAUSAL SYNDROME ANXIETY PREMENSTRUAL TENSION
PHOBIA HYPOCHONDRIASIS TICS FUNCTIONAL G. I. DISORDERS PRE-OPERATIVE ANXIETY
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PEPTIC ULCER HYPERTENSION COLITIS NEUROSES DYSPNEA INSOMNIA
PRURITIS ASTHMA ALCOHOLISM DERMATITIS PARKINSONISM PSORIASIS

perhaps the safest ataraxic known

PEACE OF MIND ATARAX®
(BRAND OF HYDROXYZINE)
Tablets-Syrup

Supplied: In tiny 10 mg. (orange) and 25 mg. (green) tablets. Also now available in 100 mg. tablets. Bottles of 100. ATARAX Syrup, 10 mg. per tsp., in pint bottles. Prescription only.

10 *mg. (t.i.d.)*

for these **10** *pediatric indic*

ANXIETY TICS
TEMPER TANTRUMS

NOW: SAFE... QUICK

ATARAX® PARENTERAL SOLUTION

when Peace of Mind can't wait

In daily practice: always have it handy
- to calm the acutely disturbed or hysterical patient
- to rehabilitate the alcoholic

In hospitals: use it routinely
- to make overwrought patients manageable without loss of alertness
- to allay anxiety and control vomiting before and after surgery and childbirth

Supplied: 10 cc. multiple-dose vials. The adult dosage is 25 mg. to 50 mg. (1-2 cc.) intramuscularly, 3 to 4 times daily, at 4 hour intervals. The moderated dosage level for children under 12, when given intramuscularly, has not yet been established, and the oral dosage should be used.

ROERIG Rx
NEW YORK 17, NEW YORK

SELECTION OF SUITABLE SULFONAMIDE IS OF PRIME IMPORTANCE IN LONG-TERM THERAPY OF URINARY TRACT INFECTIONS

Drug Must Meet High Standards of Efficacy and Safety

In recent years sulfonamide therapy for urinary tract infections has gained new popularity because the original drugs have been replaced by more soluble, less toxic and more effective sulfas.[1] Gram for gram, a single sulfonamide featuring high solubility and low acetylation is unsurpassed for efficacy and safety — especially in prolonged therapy.

An editorial in the Journal of the American Medical Association states that sulfonamides are successful in 90 per cent of urinary tract infections, and "... should be tried first."[2] There are many properties a sulfonamide should possess before it can be claimed to be efficacious and safe. "Thiosulfil,"® brand of sulfamethizole, is considered to be one of the "... most acceptable sulfonamides for treatment of urinary tract infections ..."[3]

Broad Bacteriostatic Index

"Thiosulfil" is effective against most gram negative and gram positive organisms commonly found in the urinary channels.

High Plasma — Urine Levels

"Thiosulfil" is rapidly absorbed and excreted, achieving high antibacterial levels in the urine and throughout infected tissue, with negligible penetration into red blood cells.

High Solubility

"Thiosulfil," in both the active and acetylated forms, is highly soluble in urine over a wide pH range, thus permitting effective action with minimal side effects. Alkalinization is not required; fluids may be restricted rather than forced.

Low Acetylation

"Thiosulfil" is virtually unacetylated. As much as 90-95 per cent remains in the free therapeutically active form. Virtually all of a given dose is therefore available for antibacterial action.

In a long-term clinical study, patients with incurable chronic urinary infections were kept symptom free for as long as five or six years on a maintenance dose of one or two tablets of "Thiosulfil" daily.[4] In another evaluation, 20 patients were given 25-100 grams of "Thiosulfil" over a period of 20-90 days without incidence of side reactions.[5] Goodhope[6] reports that during 30 months of clinical use with "Thiosulfil," no evidence occurred of exanthemata, urticaria, emesis, fever, hematuria and crystalluria.

Recommended Dosages: 0.5 Gm. four times daily. The pediatric dosage is 30 to 45 mg. daily per pound of body weight. If voiding occurs during the night, an extra half-dose should be given. Fluids may be restricted rather than forced.

Availability: Tablets, 0.25 Gm. (bottles of 100 and 1,000). Suspension, 0.25 Gm. per 5 cc. (bottles of 4 and 16 fl. oz.).

Bibliography on request.

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TUBERCULOSIS ABSTRACT

Tuberculosis—in and out of Industry

THE PROBLEM

This year, approximately 50 persons in every 100,000 in the U. S. will develop tuberculosis. In 1955 of 100,000 new patients 75,000 had active disease. There were 15,000 people who died with tuberculosis. During this same year an increase in the number of new cases was reported by 15 states and the District of Columbia —and the District of Columbia and 6 states reported an increase in the number of deaths.

In the New England States in 1955 of 4,000 newly reported cases, 3,500 had active disease. There were 800 people who died with tuberculosis.

MANAGEMENT

How about the old familiar landmarks in the management of tuberculosis—hospitalization, absolute bed rest, collapse therapy, sputum studies, x-rays, symptoms, exercise, work tolerance, rehabilitation and follow-up?

Active tuberculosis is best managed in the hospital. Absolute bed rest has been modified and is being evaluated under the protective umbrella of drug therapy. We are learning to use the new methods and evaluate the old, retaining whatever of the old that is good and replacing only when we have something better. Drug therapy, blood banks and advances in anesthesiology have contributed to the development of resection surgery. Wedge and segmental resections, lobectomy and pneumonectomy offer the advantage of removal of tuberculous tissue and have largely replaced collapse therapy measures, although pneumothorax and pneumoperitoneum are occasionally used, and plombage and thoracoplasty have a limited place in today's surgical procedures.

Drug therapy has cut down on the amount of sputum. In most patients conversion from positive to negative sputum occurs in three or four months. Sputum usually remains negative while the patients are on drugs but may revert to positive when drugs are discontinued. A series of negative sputum examinations on smear, culture and animal inoculations is of less prognostic significance if the patient is on drug therapy than it is after the drugs have been discontinued for three or more months.

Sensitivity studies on positive cultures guide changes in chemotherapy. Proper significance must be placed on "nonvirulent" and "nonpathogenic" acid fast organisms. Sputum examinations and the significance of sputum findings have indeed become complex.

Conventional x-ray examination, aided by body section laminagraphy, helps to determine stability. We still find bacteriological relapse with an unchanged x-ray picture, but today there is also the question of the "sterile cavity." Suffice it to say, cavity or bleb, sterile or non-sterile cavity—we prefer surgical removal when possible.

A feeling of well-being early in the course of recovery is the rule more so today than in the past. Graduated exercise, work tolerance and rehabilitation, like bed rest, are being modified and evaluated. Follow-up after discharge is important for the protection of the patient and for the proper evaluation of today's changing picture of treatment and management.

As for chemotherapy, the search is still on for the nontoxic, inexpensive bactericidal oral drug while today's drugs are used in conjunction with modified rest, supplemented by surgery when indicated. Drug therapy is usually used for all active disease. Streptomycin and isonicotinic acid hydrazide are major drugs. Para aminosalicylic acid is the most commonly used minor drug. Pyrezinamide and cycloserine are minor drugs that are more recently available. Because tubercle bacilli, resistant to available drugs have grown out when drugs are used singly—they are used in combination, preferably a major and a minor, keeping one of the majors in reserve. Isonicotinic acid hydrazide and para aminosalicylic acid or streptomycin and para aminosalicylic acid are two such combinations.

Exudative and pneumonic disease tends to resolve more rapidly than fibroid or cavitary disease. Definitive resection surgery properly timed during the course of drug therapy is used for selected cases.

How long the patient should be kept on drug therapy is not known, but it has been found necessary to increase the average time repeatedly. At present, in a general way, one might suggest as a minimum period of time on drug therapy: (a) for minimal pulmonary tuberculosis, a minimum of one year; (b) for advanced pulmonary tuberculosis, a minimum of 18 months; (c) for genitourinary, miliary and meningeal tuberculosis, a minimum of two years. These are minimum periods; drug therapy may be continued indefinitely beyond these minimum periods in the presence of continuing active disease.

THE FUTURE

Since the mean hospital stay is decreasing and the duration of drug therapy is increasing, a higher proportion of patients will be returning to work while still on drug therapy. Negative sputum needs to be confirmed when the drugs have been discontinued. Relapse rates under modern treatment are not available for a long enough period of time. However, preliminary trends suggest 8 per cent to 10 per cent, with over half of the relapse occurring within the first year after hospital discharge. Sputum examinations and x-ray comparisons continue to be the bulwark of follow-up.

INDUSTRY AND TUBERCULOSIS

How does this affect industry? The chest x-ray as part of a pre-employment examination gives the physician in industry a permanent and valuable record of the employee and indicates the need for medical investigation with a high degree of accuracy in chest disease. Mass chest x-ray examinations of all employees at stated intervals rounds out the advantages gained by pre-employment examination.

Differential diagnosis and the determination of activity in tuberculosis may be quite simple or extremely complex, and may be most easily carried out in the hospital. The employee who is known to have had active tuberculosis should be under adequate supervision. The patient who is on chemotherapy should have x-ray and sputum studies once a month. Follow-

---

Issued by the National Tuberculosis Association.

By Reginald C. Edson, M.D., F.A.C.P., Industrial Medicine and Surgery, March, 1957.

These are changing times in tuberculosis. Death rates have fallen sharply and there has been a small but steady decline in incidence rates.. New drugs and resection surgery have had so profound an effect that there is danger of overoptimism. Tuberculosis is far from eradicated.

up may be provided by the family physician, by the hospital outpatient department, by the local health department, or by the Medical Department of the industry. The patient should be taught the value of a free exchange of information between these medical teams.

The patient who has had tuberculosis has always been a valuable asset to industry. He has learned to live moderately. He is usually on time, does his work well, and loses below average time for sick leave. The patient who is diagnosed early, treated by today's standards and adequately followed, will have less of a physical handicap than the patient who had tuberculosis 10 or more years ago; and he will, therefore, be an even greater asset to industry.

SUMMARY

Tuberculosis is still with us; the death rate has fallen remarkably; the incidence is slowly decreasing; treatment is a rapidly changing picture; adequate follow-up protects the patient and industry; and the patient who has had tuberculosis is a valuable asset to industry.

Washington

(Continued from page 1032)

Dr. Welch presented results of a nationwide FDA survey covering a period from the latter part of 1953 to early 1957. He said that isolated reports of penicillin reactions with a relatively high percentage of fatalities have been appearing in the medical literature since 1945. The survey, first nationwide study of reactions to the principal antibiotics, showed a substantially higher number of reactions to penicillin than to other antibiotics.

Dr. Welch pointed out that an estimated 10 per cent of the population, or 17 million persons, are prone to become sensitive in some degree to various substances in foods, drugs, and cosmetics. Data are not available on the number of persons receiving penicillin or subject to reactions to the drug. Also, it is not possible, Dr. Welch said, to determine absolutely that an individual will or will not suffer a reaction.

Dr. Welch pointed out that the number of reactions to penicillin is still small when it is considered that millions of persons receive the drug each year and that it has saved tens of thousands of lives. The increased incidence of reactions, he said, is to be expected in the wide use of a highly antigenic substance.

In the survey, 3,419 case histories of severe reactions were collected and classified. Of these, 424 were excluded from the tabulation because of insufficient data.

The FDA survey was a geographic sampling of severe cases handled by over 1,600 private physicians and covered 198,000 of the 685,000 general hospital beds available in this country. It was conducted by inspectors in the agency's 16 districts.

Under criteria established for the survey, severe reactions were classed as (1) life-threatening or (2) not life-threatening. One-third, or 1,070, of the reported reactions to all antibiotics were classed as life-threatening. Nearly two-thirds, or 1,925, were classed as not life-threatening.

In the order of seriousness to the patient, the life-threatening reactions included 809 cases of anaphylactoid shock, 107 superinfections, 70 severe skin reactions, 46 blood dyscrasias, and 38 cases of angioneurotic edema with respiratory or cerebral involvement.

The great majority, or about 900, of the life-threatening reactions followed the use of penicillin. More than 600 of the most serious reactions—the anaphylactoid shock cases—resulted from penicillin by intramuscular injection. In 122 of these cases, penicillin was used in combination with streptomycin or dihydrostreptomycin.

There were 72 deaths from anaphylactoid shock, all but one of which followed intramuscular injections. One followed the use of oral chloramphenicol. One death was caused by angioneurotic edema following the use of oral penicillin.

Anaphylactoid reactions occurred with about equal frequency in males and females and in all adult age groups. The smallest number of reported anaphylactoid reactions occurred in children 12 years of age and under.

The trend of increase in serious reactions, especially from penicillin given by intramuscular injection, shows there should be a clear-cut indication of need before the drug is administered, Dr. Welch said. The study of case histories indicates that there has not been indiscriminate use of penicillin by physicians, he emphasized.

The survey indicated that the broad spectrum antibiotics, which include the three tetracyclines and chloramphenicol, cause relatively few adverse reactions. However, the tetracycline antibiotics should be used cautiously, particularly for patients undergoing abdominal surgery, Dr. Welch said. The possibility of staphylococcal enterocolitis should be kept in mind when these drugs are given, he added.

HEALTH INSURANCE FIRM CODE

The Health Insurance Association is distributing copies of its recently adopted code of ethical standards. The organization is a trade association of 261 companies in the United States and Canada, representing more than 80 per cent of the voluntary health insurance in force through commercial insurance firms.

The code lists nine specific points governing the sale, administration and advertising of voluntary health insurance, and has become a strict condition of membership in the trade group.

There are more than 66 million persons in the United States today covered by insurance company policies designed to help pay doctor and hospital bills.

News

(Continued from page 1064)

W. D. Bradshaw, M.D., Clinton, recently moved his office from the Clinton General Hospital to the newly remodeled Woodruff building, located on the south side of the square in Clinton. Dr. Bradshaw also serves as Henry County coroner.

Albert J. Campbell, Jr., M.D. recently returned to Sedalia to open an office at 312½ South Ohio and to take charge of the practice of his father, **A. J. Campbell**, M.D., who is ill. Young Dr. Campbell is a graduate of the University of Missouri, University of Pennsylvania Medical School and interned at the University Hospital, Ann Arbor, Mich., where he was in his second year of residency when his father became ill.

The guest speaker before the annual meeting of the Green County unit of the American Cancer Society held September 24 at the Kentwood Arms Hotel in Springfield was **A. McChesney Evans**, M.D., of the Ellis Fischel State Cancer Hospital in Columbia.

St. John's Hospital, St. Louis, recently was the recipient of a $10,000 gift to the hospital building fund from an anonymous donor. Two weeks after the gift was presented, it was learned Pat Gillespie, a 76-year-old employee of the hospital who had just died, was the donor. Mr. Gillespie, a native of Ireland, had worked as a parking lot attendant, receiving room clerk and at other jobs around the hospital for 28 years. The hospital is planning a fitting memorial for Mr. Gillespie. Probably one of the rooms in the proposed 670-bed St. John's Hospital in St. Louis County will be named for Pat Gillespie.

Drs. **J. D. Caldwell** and **John Duckworth** of Hayti recently announced the addition of a new physician to their clinic staff. He is William O. Bryant, M.D., formerly of Newbern, Tennessee.

Joseph Threadgill, M.D., son of Dr. and Mrs. Jesse M. Threadgill, Forsyth, has entered Hartford General Hospital, Hartford, Conn., to serve two years of internship.

Featured speaker at the Ozarks Regional Heart Association education program held September 10 at Buffalo high school was **George B. Lemmon**, M.D., Springfield.

C. W. Kirk, M.D., and Mrs. Jennie Dalby, both of Hopkins, were married Sunday afternoon, September 8, at Mrs. Dalby's home.

Jose M. Sala, M.D., chief of radio-therapy at the Ellis Fischel State Cancer Hospital, Columbia, said the new cobalt therapy wing at the hospital was scheduled to be in operation early this month. It will be Missouri's largest and most complete cobalt therapeutic installation.

Three of Sedalia's doctors recently moved into new quarters at Sixteenth and Vermont. They are Drs. **W. A. Beckemeyer, J. W. Boger, and A. L. Walter.**

R-13 district school in Avilla recently held a polio clinic for local children desiring Salk polio vaccine. **Richard R. Cohle**, M.D., Carthage, and the county health nurse were in charge of the clinic.

A Kansas City surgeon, **Berneil W. Andrews**, M.D., was initiated into the International College of Surgeons which met in Chicago recently.

James M. Baker, M.D., Columbia, University of Missouri athletic team physician since 1938, recently attended a clinic for team physicians and trainers at the University of Colorado Medical School in Denver.

The guest speaker before a recent meeting of the Buchanan County unit of the American Cancer Society in St. Joseph was **Albert E. Upsher**, M.D., Kansas City. Presiding at the meeting which included the election of board members and officers was Caryl A. Potter, Jr., St. Joseph.

Robert L. Jackson, M.D., Columbia, attended a recent meeting of the newly formed Missouri Cerebral Palsy Medical-Professional Advisory Board held at Lake Ozark.

One of the owners of the Lee hospital in Fayette, **William J. Shaw**, M.D., attended the World Medical Association conference in Istanbul, Turkey. He served as an observer for the American Medical Association. Dr. Shaw has been an A.M.A. observer at the last three conferences held in Cuba, Austria and The Netherlands.

The Audrain County Heart Council recently organized in Mexico, chose **Lawrence K. Epple**, M.D., as its first president. Drs. **Ernest S. Gantt, Glenn P. Kallenbach, Leonard L. Davis,** and **Harry F. O'Brien**, all of Mexico, were selected as directors.

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Missouri Medicine in Review

(Continued from page 1028)

TEN YEARS AGO

The memory of the late Katharine Berry Richardson, M.D., Kansas City, was honored by a program and the unveiling of a plaque at the Children's Mercy Hospital in Kansas City at its 50th anniversary. Dr. Richardson and Dr. Alice Graham were its founders.

Physicians are being asked to furnish medical evidence to substantiate the claims of railroad workers who may now draw cash sickness benefits under the Railroad Unemployment Insurance Act.

Thirty-five members of the St. Louis Medical Society were presented golden anniversary certificates at the meeting of the Society of October 7 in recognition of their having completed 50 years of medical practice.

More German university students want to take up medicine than any other profession, according to the Berlin Correspondent of *The Journal* of the American Medical Association, writing in the October 18 issue. He states that this is particularly true in the American and Russian zones of occupation. The number of registered medical students in the four zones: American zone, 10,714 students; British, 6,430; French, 2,887; and Russian, 3,336.

The St. Louis County Medical Society held its regular meeting on September 24 at 8:30 o'clock at the Health Center, St. Louis County Hospital, Clayton. Julius Jensen, M.D., reported that the dinner to be given by the St. Louis Medical Society and the St. Louis Dental Society would be held on November 24 at Hotel Jefferson with Professor Shields Warren speaking on "Atomic Energy."

A joint meeting of the Miller, Moniteau and Morgan County Medical Societies was held at Versailles on September 17 with the following members and guests present: W. L. Allee, M.D., G. D. Walker, M.D., E. O. Shelton, M.D., and Carl Buehler, Jr., M.D., Eldon; H. C. Hume, M.D., Tipton; L. L. Latham, M.D., K. S. Latham, M.D., and E. A. Kibbe, M.D., California; A. J. Gunn, M.D., W. G. Gunn, M.D., and J. L. Washburn, M.D., Versailles; J. W. Allee, M.D., Columbia, and Raymond McIntyre, St. Louis.

Dr. Morris Fishbein, editor of *The Journal* of the A.M.A., announced that Dr. Richard J. Plunkett has taken over his duties as associate editor of *The Journal.* Dr. Plunkett, who formerly was vice-president and director of the division of health and sanitation of the Institute of American Affairs in Washington, received his M.D. degree from Tufts Medical College in 1933 and his master's degree in public health from Harvard in 1939.

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HEAD COLD
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Phenaphen Plus is the physician-requested combination of **Phenaphen,** plus an antihistaminic and a nasal decongestant.

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each coated tablet contains:	Phenaphen
Phenacetin (3 gr.)	194.0 mg.
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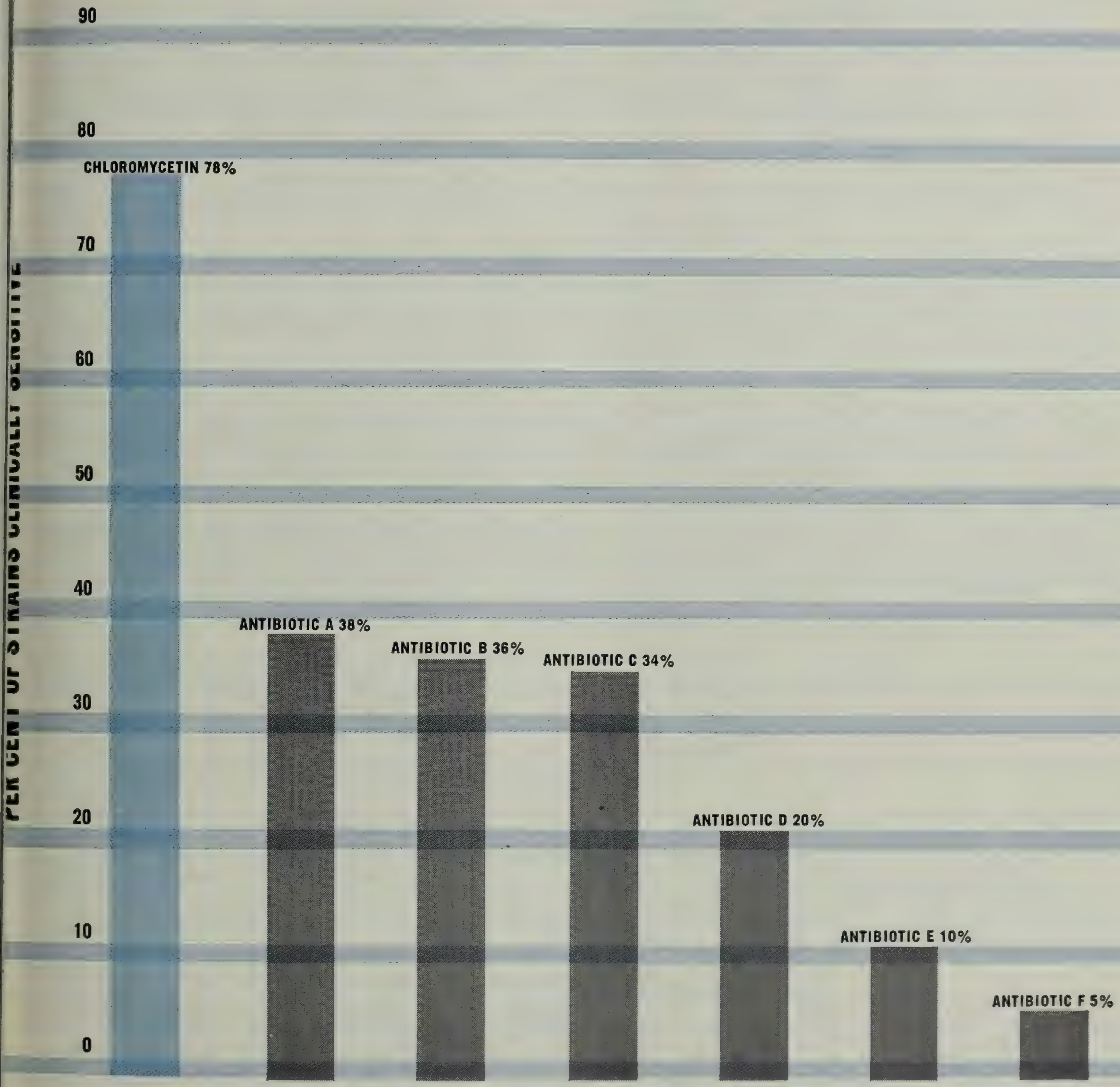
Hyoscyamine Sulfate	0.031 mg.
	plus
Prophenpyridamine Maleate	12.5 mg.
Phenylephrine Hydrochloride	10.0 mg.

COMPARATIVE SENSITIVITY OF MIXED PROTEUS SPECIES TO CHLOROMYCETIN AND SIX OTHER WIDELY USED ANTIBIOTIC AGENTS*



*This graph is adapted from Waisbren and Strelitzer.[15] It represents *in vitro* data obtained with clinical material isolated between the years 1951 and 1956. Inhibitory concentrations, ranging from 3 to 25 mcg. per ml., were selected on the basis of usual clinical sensitivity.

Missouri Medicine

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Curiosa et Trivia

William B. McCunniff, M.D.

You could ride 24 hours a day on commercial airlines at 300 miles an hour for 400 years without a crash. On railroads, traveling at 75 miles an hour, chance of a fatal accident would come up in about 2,000 years.

Hippocrates, in 500 B.C., recommended restricted diet and hot foot baths for eye ailments.

The annual cost of accidents in the United States would pay for construction of 2,000 new 300-bed hospitals.

Urological note: white wines produce greater diuresis than red wines, due to the high potassium content.

About one-fifth of the doctors in the entire world are in the United States.

Where are the $7.00 a day beds? The average cost per patient day in non-profit hospitals is now about $25!

Capsule Clinics

I. A. Wien, M.D.

- The year 1957 marks the 150th anniversary of the University of Maryland School of Medicine, and it is interesting to know that at this school compulsory human dissection and bedside teaching were first conceived. Editorial: Bull. School of Med., University of Maryland **42** (January) 1957.

- Meprobamate is effective in reducing the frequency of petit mal seizures and myoclonic seizures in children; however it is of little value in grand mal epilepsy. Ayd, Jr., F. J.: Bull. School of Med., University of Maryland **42** (January) 1957.

- Amodioquin (Camoquin) is an effective drug in the treatment of discoid lupus erythematosus. Robinson, R. C. V., et al.: Bull. School of Med. University of Maryland **42** (January) 1957.

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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

The State Board of Health has moved into its quarters in the new capitol. No more joy rides for Englishmen; gasoline for motor cars has been limited strictly to trips on necessary business. Dr. Guy L. Noyes, dean of the Medical School, University of Missouri, has been relieved from military duty at Camp Funston and returned to Columbia to continue his school duties. An epidemic of spinal meningitis as Camp Funston, Kan., caused considerable alarm among the troops for several weeks last month, but the Army surgeons soon had the disease under control. Lt. A. L. Evans, Bonne Terre, who was a member of the Medical Officers Reserve Corps stationed at the training camp at Ft. Oglethorpe, Ga., has been honorably discharged and returned to his home. At a meeting of the Wright County Medical Society Nov. 2, 1917, a motion carried that the society should draw a warrant upon its treasury for the state assessment of all its members called to active service in the war.

The recent statement that Dr. W. A. Clark of Jefferson City had been appointed physician to the penitentiary was erroneous. Dr. Clark is only acting as prison physician at the request of the board until the board can decide upon a permanent appointment. The public schools of Cape Girardeau are being seriously handicapped by epidemics of smallpox, diphtheria, scarlet fever and whooping cough. A nurse from the St. Louis Hygienic Department has been enlisted into service, but the local medical profession has been able to control the situation. Recently an outbreak of measles at Camp Pike, Little Rock, Ark., sent many of the soldiers to the hospital. Most of the men in this camp are from rural districts who are more susceptible to this disease than are men from cities, because the latter usually are immune through attacks during childhood.

The results of the examination for license to practice in Missouri, held by the State Board of Health in September, show four failures out of twenty applicants. Licenses were issued to the sixteen successful applicants and to ten others who applied for license on reciprocity. The next examination will be held in St. Louis, December 17, 18 and 19.

Vice in the form of 23,000 women, bootleggers and gamblers, organized and controlled by a syndicate, it is said, threatens the morals and health of the soldiers at Camp Lewis near Seattle, Wash. Maj. Gen. Henry A. Greene, commander of the army at the camp, declares he will quarantine Camp Lewis against Seattle and Tacoma if the ring is not broken up.

TWENTY-FIVE YEARS AGO

Lincoln had numerous doctors as friends. Dr. William Wallace was undoubtedly for many years the family doctor of the Lincolns. But Abraham Lincoln's acquaintances among the doctors were numerous and included medical school graduates, undergraduates and those schooled by experience in the corner drug stores. Further evidence of Lincoln's cordial relations with the doctors is afforded by a letter often quoted, which he wrote with a twinkle in his eyes: Judge Blades, whom Lincoln had known as Dr. Blades, wrote to Lincoln, asking for the use of his name as reference but neglecting to explain his change of profession. Lincoln answered: "I do not know whether you are Doctor Blades or not. If you are Doctor Blades, you may use my name; if you are not Doctor Blades, if Doctor Blades says you may use my name, you may do so." In the May issue of *Hygeia*, Dr. Milton H. Shutes narrates the experience of Lincoln with numerous doctors whom he knew politically, socially or casually.

Mrs. W. L. Wysong, Liberty, wife of Dr. Wysong, became coroner of Clay County as a result of the November election. Mrs. Wysong is the only woman coroner in Missouri and probably in the United States. She was her husband's assistant during two terms which he served as coroner.

St. Mary's Dispensary, St. Louis, is cooperating with the St. Louis Aid Society by giving free and complete outpatient care to motherless children who are under the care of their fathers. Children who are not receiving follow-up care as advised in physical examinations in schools will be referred to the dispensary.

Dr. W. W. Johnston, Cape Girardeau, began his duties as assistant health commissioner of the State of Iowa on November 15. Dr. Johnston was deputy state health commissioner in Missouri and was in charge of the St. Francois County Health Unit from May, 1925, until its discontinuance in July, 1931.

Dr. Ernest Sachs, St. Louis, sailed November 11 for Honolulu where he will initiate a postgraduate course in specialized medicine and surgery under the auspices of the Honolulu Medical Society.

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

The Ninth Annual Assembly of the Missouri Academy of General Practice held at the Governor Hotel in Jefferson City October 30-31 was indubitably a smashing success. The Education Committee, headed by Dr. Wyeth Hamlin of Hannibal, has repeatedly been commended from all sides for the excellence of the scientific fare provided, as well as the punctuality and effectiveness with which it was served.

The arrangement of the program into symposia terminated by panel discussions proved to be a most effectual and enjoyable departure from previous arrangements. Our ubiquitous Secretary, Ray McIntyre, contributed immeasurably to the meeting's success by his careful attention to the invaluable and myriad details great and small entailed by any medical meeting held on a comparable scale. Even more convincing evidence of the Assembly's success is the record of total attendance numbering 239—some 100 more than the previous record.

Already, work is underway for the Tenth Annual Assembly to be held at the Chase Hotel in St. Louis on October 18 and 19, 1958. These plans include two major departures from previous custom. The 1958 meeting will be the first held outside of Jefferson City for many years and will be the first scheduled on a weekend (Saturday and Sunday) instead of the customary Wednesday and Thursday. Fortunately, Dr. Wyeth Hamlin will again head the Education Committee whose personnel remains the same. The proven ability and enthusiasm of this committee promises another outstanding program and an even greater attendance in St. Louis.

No comment on the 1957 Assembly would be complete without mention of the President's Installation Banquet and Dance, climaxed this year by the presentation of special lapel pins to all Past Presidents of the Missouri Academy of General Practice. Dr. Charles Martin, retiring President, made the award with grace and dignity in a simple ceremony most gratifying to all present.

At a short business session, the following new officers were elected: President-elect, Dr. P. V. Siegel, Smithton; Vice-President, Dr. P. C. Hall, St. Louis; Board of Directors for three year terms, Dr. Kenneth Knabb, Springfield, Dr. Edson Carrier, Kansas City, Dr. Walter Gunn, St. Louis; to Board of Directors for a two year term, Dr. George Fiest, Kansas City; Delegates to the AAGP, Dr. Kenneth Glover, Mount Vernon, Dr. Norton J. Eversoll, St. Louis; with alternates, Dr. Tom Dwyer, Mexico, and Dr. Cecil G. Leitch, Kansas City. Dr. R. R. Becker of Kansas City was installed as President, with yours truly serving another year as Secretary-Treasurer.

Another important item of business transacted was the granting of a charter to a Southwest Missouri chapter of the Missouri Academy which encompasses 22 counties. Officers for this new chapter are; Dr. M. L. Gentry, Springfield, President; Dr. C. R. Macdonnell, Marshfield, Vice-President; and Dr. Kenneth Knabb, Springfield, Secretary-Treasurer. This makes a total of six chapters which have now been chartered as component chapters of the Missouri Academy of General Practice.

As the AAGP continues its phenomenal growth as a medical organization, the Missouri Academy keeps pace with an additional 50 members in 1957. This brings the total membership of the MAGP to 574 and reflects, in some measure, the unbelievable amount of time and effort expended by the membership committee so capably headed by Dr. Preston C. Hall, St. Louis.

A.M.A. TO MEET IN PHILADELPHIA

Philadelphia is expected to play host to about 4,000 physicians at the American Medical Association's 11th clinical meeting to be held this month from the 3rd to the 6th.

Meetings will be held in Convention Hall and at the Bellevue-Stratford Hotel, where the House of Delegates of the A.M.A. will hold sessions.

In Convention Hall there will be 120 scientific exhibits and 160 technical exhibits.

About 200 physicians will take part in the lecture meetings, symposia and panel discussions. Subjects will cover juvenile delinquency, cardiovascular disease, hypertension, diabetes, arthritis and obstetrical problems.

A special feature of the meeting will be a trans-Atlantic conference between physicians in Philadelphia and London on advances in chemotherapy of cancer. Closed circuit television again will be shown, with programs originating in Philadelphia's Lankenau Hospital.

The general practitioner of the year also will be named during the session.

The entire postgraduate education meeting is aimed at helping to solve the daily practice problems of the family physician, according to Dr. Thomas G. Hull, Secretary of the A.M.A.'s Council on Scientific Assembly.

"Eighty-seven patients with various infections of the skin were treated over a period of six weeks with [Signemycin]. Excellent or good results were achieved in sixty-seven, including eleven of twenty-two patients refractory to other antibiotics."

Lewis, H. H.; Frumess, G. M., and Henschel, E. J.: Rocky Mountain M. J. *54*:806 (Aug.) 1957.

"Results of treatment with oleandomycin-tetracycline of 50 infections [mostly respiratory] due to resistant organisms and 40 infections [respiratory, skin, urinary infections] due to sensitive organisms are very encouraging. In some of these patients, [Signemycin] was lifesaving, and in others surgery was made unnecessary. This confirms other reports."

Shubin, H.: Antibiotic Med. & Clin. Therapy *4*:174 (March) 1957.

Based on case reports documented by independent investigators in 26 countries abroad, the clinical response obtained with Signemycin in 1404 patients with a wide variety of infections was successful in 1329 patients; in 13 cases only was it necessary to discontinue therapy because of side effects.

Report on 1404 Cases Treated with Signemycin: Medical Department, Pfizer International. Available on request.

In 50 nonselected patients, Signemycin "...appears to be effective in the treatment of most general surgical infections, including virulent staphylococcus aureus infections. In some cases these infections had been clinically resistant to other antibiotics. The drug is apparently well tolerated."

Levi, W. M., and Kredel, F. E.: J. South Carolina M. A. *53*:178 (May) 1957.

Of 50 patients with various infectious processes, 26 had not responded to previous antibiotic therapy. With Signemycin "Ninety-six per cent of the mixed infections were clinically controlled. . . . and in none of the cases was there any reason to discontinue the drug."

Winton, S. S., and Chesrow, E.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 55.

Signemycin in 79 patients with severe soft tissue infections: "The average response of these cases was excellent and inflammatory symptoms subsided with almost uniform rapidity....The magnitude and incidence of surgical intervention was reduced....Side reactions were minimal. . . ."

LaCaille, R. A., and Prigot, A.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 67.

Five groups of patients (total 211) with acne were treated with one of five antibiotic agents, including Signemycin (55 cases). "The results were evaluated taking into consideration the usual response to such conservative conventional therapy and the rapidity of response." In 8 weeks, Signemycin rapidly attained and maintained the highest percentage of efficacy of antibiotic agents tried.

Frank, L., and Stritzler, C.: Antibiotic Med. & Clin. Therapy *4*:419 (July) 1957.

In the treatment of 78 patients with tropical infections, some complicated by multiple bacterial contamination or present for years, Signemycin was found to be "...an exceptionally effective agent," requiring smaller doses and less extended periods of therapy than with the tetracyclines alone, and "caused no notable toxic reactions."

Loughlin, E. H., and Mullin, W. G.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 63.

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WASHINGTON

In a recent major address President Eisenhower called upon business and community leaders as well as physicians to help pick up the bill for medical education. He specifically warned against the danger of overdependence on the federal government to pay the education bill.

Whether this will be the theme of his administration's requests next session of Congress remains to be seen.

It was noted, however, that the president failed to mention the administration's pending bill for federal construction to medical schools during his speech to the National Fund for Medical Education. There is no indication that it will not be pushed in the next congressional session.

But on one health front, the administration seems to have made up its mind.

Reportedly with White House clearance, the Civil Service Commission is circulating fact sheets explaining the commission-sponsored program of health insurance for federal civilian employees. A bill to carry out the plan is pending.

The program would provide both basic and catastrophic insurance for participating employees, with the United States paying one-third. Basic insurance could be that provided by employees' unions or associations, fraternal groups or Blue Cross-Blue Shield, or insurance companies.

Adoption of the fringe benefit has been urged as a recruitment aid that would put Uncle Sam in a better competitive hiring position, especially for scientists and engineers.

The CSC also recently relaxed the ban against advertising to induce scientists and technologists to join the federal ranks. Russia's Sputniks are being heavily credited for the ruling.

A 12-man advisory council has been named to review the financial position of the nation's multi-billion dollar social security program by Marion B. Folsom, Secretary of the Health, Education and Welfare Department.

The committee, representing employers and employees as well as the public and the self-employed, will examine the proposed labor-backed bill for free hospitalization for social security recipients.

Folsom said his department had taken no stand yet on the Forand bill, "but in a general way we are concerned with not getting payroll taxes to too high a level."

It has been estimated that if the Forand bill was enacted, as drawn, it would hike social security taxes 70 per cent.

A new ruling by the Internal Revenue Service gives some hint that the Jenkins-Keogh bill to permit self-employed persons to participate in tax-deferred pension plans may have some hope in Congress next year.

The ruling, a reversal of former IRS practice, states that doctors practicing as an association are entitled to the same tax deferment privileges as corporation employees regarding annuities.

However, this wouldn't apply to Missourians. The ruling requires that the corporate practice of medicine be permitted by the state statutes. Missouri's does NOT.

Many Washington observers hopefully view the new ruling as a bellwether of things to come next session regarding the long-sought Jenkins-Keogh bill.

The time is ripe to contact your Congressmen and urge their support of this vital bill! There still are many opponents outside the medical field to the legislation that would mean a loss of tax revenue to the government.

Testing of thermonuclear weapons should continue despite radiation hazards, the Atomic Energy Commission has been told by a 6-man advisory committee on biology and medicine.

The committee, in taking sides with the AEC on the controversy, comments ". . . if we wish to maintain a first class military organization for the safety of the country, we must at least keep abreast of new weapons developments. . . ."

The testing has embroiled the AEC in lengthy congressional hearings that are expected to continue for some time. Much of the argument centers on just what statistical death rate increases will result.

The AEC advisory committee made some estimate of maximum increases to be expected. The increases, based on an annual detonation of atomic explosives equal to the average of all tests held in the last five years, would: increase leukemia 160 deaths and possibly another 36 deaths over current rate of 11,400; birth of handicapped children, an increase of from 160 to 800 above the

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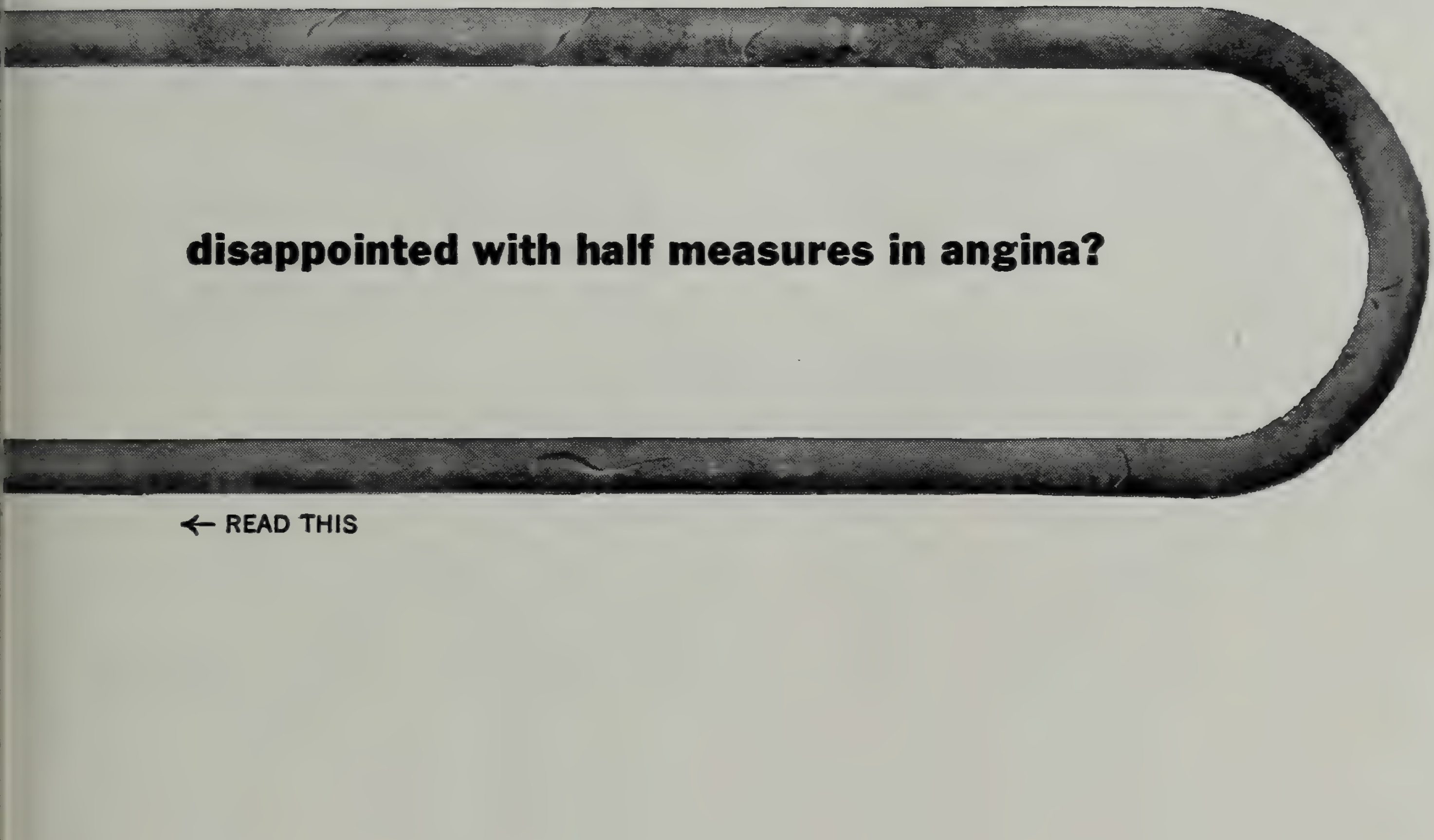

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Woman's Auxiliary

MRS. ARMAND D. (*Ruth Anne*) FRIES, *President*

One of the required duties of a state president is to attend the Annual Conference of state presidents, state presidents-elect and all National officers and, with Mrs. H. C. Bauman, Maryville, president-elect, I have attended the 14th Annual Conference which was held in Chicago, October 20 to 23 at the Drake Hotel and A.M.A. headquarters. The Conference opened with a continental breakfast at 8:30 o'clock Monday morning, October 21, in the Grand Ballroom of the Drake, and closed at A.M.A. headquarters on Wednesday, October 23. The Conference emphasized group understanding and the program stressed the objectives of the Woman's Auxiliary and the relation of its activities to the objectives.

The Director of the Conference was Martin P. Chworowsky, Ph.D., director, Albert M. Greenfield Center for Human Relations, of the University of Pennsylvania. The Conference was arranged in six small discussion groups to which all Conference members were assigned. There were two sessions of each group and the same topics were covered in all groups. There was ample time and opportunity to discuss Auxiliary activities with national chairmen and A.M.A. staff members who were also present. At the A.M.A. headquarters, we viewed new films and visual aids, and listened to discussion on how to use them effectively. This was a most interesting and enlightening meeting which afforded training and experience in group discussion methods, and a splendid way to stimulate friendship and interest with the officers of other states. It was both delightful and interesting to compare and discuss another state's activities with ours, and to share with them the plan of some project which we have successfully carried out.

Six months have passed since I have assumed the responsibilities of the presiding officer of this organization, and since then I have been writing and answering letters, planning meetings and thinking about the Auxiliary and its activities for the coming year. I am deeply grateful for the many courtesies extended me, as President, and proud of the worthwhile projects of our Auxiliary, yet humble for how little I do to advance the causes.

One of the most pleasant assignments of my office is the personal visits to the county auxiliaries, which is traditional with the state president. One has an opportunity to see them in action and to interpret the program recommended to them by the National Auxiliary. The *Quarterly Bulletin* which all Auxiliary members receive will carry a résumé of all the counties I have visited to date.

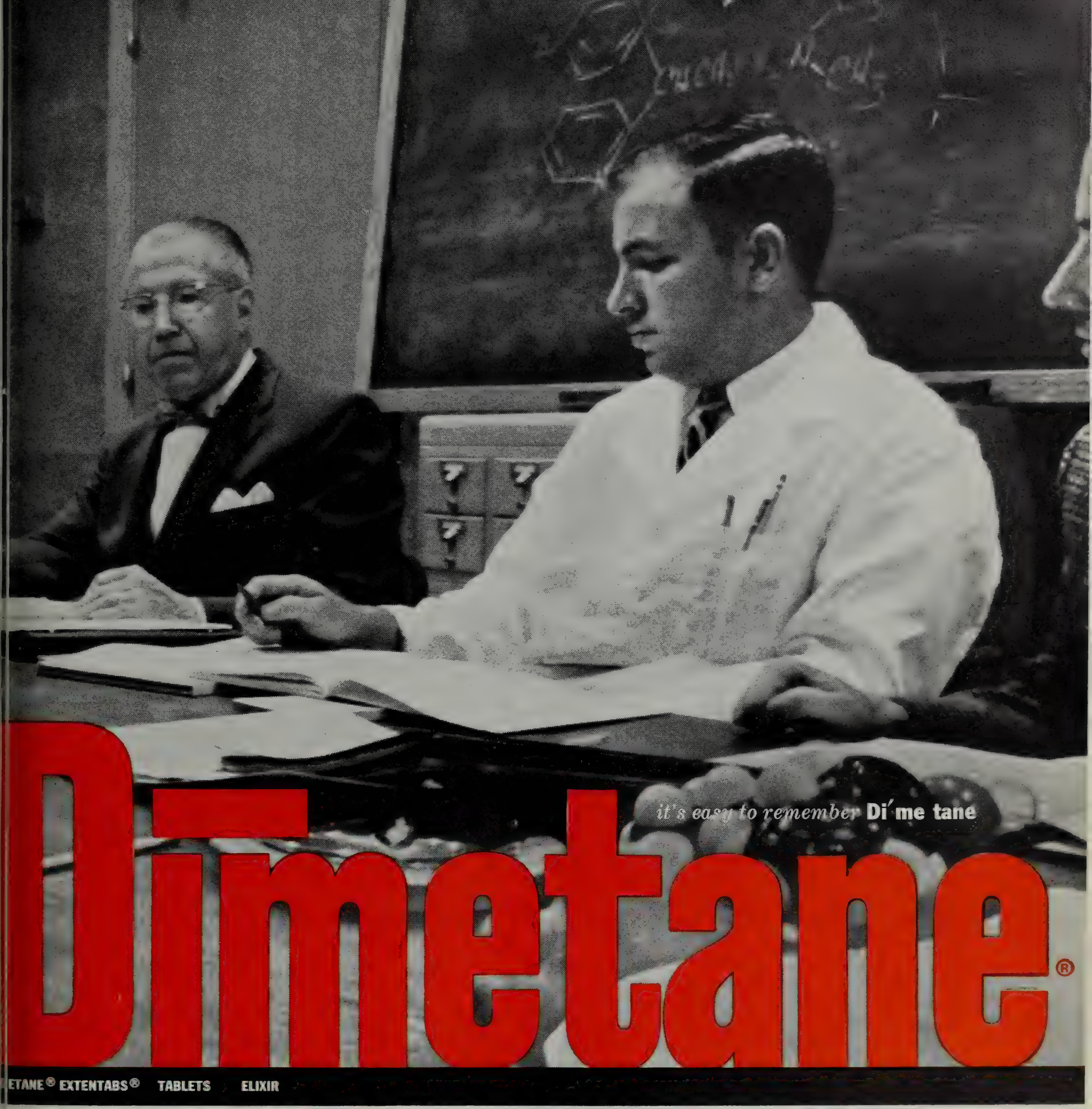
Every visit has been a pleasure and inspiration to me and I return home with an enriched feeling of pride in my husband's chosen profession; and in the splendid group of doctors' wives throughout our state who, by the nature of their community roles, are so tremendously helpful in creating good public relations for their own husbands and the medical profession in general. It would take much space to recount how well the activities carry out the objectives in their own communities; but the cooperation and interest evidenced in working together on some phase of Auxiliary work is most gratifying. Each project of Auxiliary work, American Medical Education Foundation, *Today's Health,* legislation, safety, mental health, civil defense, Health Careers' recruitment, Student Loan Fund, rural health, and honoring our doctors on a special day, and above all public relations, are all actively and devotedly carried out. Programs for some meetings are essentially social; every well planned meeting has two component parts—learning and living. In all my visits I have found too, that the doctor's wife is called upon to help with every civic project that takes place in her community.

"Into each life some rain must fall," and this administration has been saddened recently by the death of Mrs. August A. Werner, one of our St. Louis City Auxiliary's past presidents, and a former state President. I served as treasurer on her Board during her county presidency and was corresponding secretary during her state tenure of office. Because of a heart attack she was unable to actively carry out the duties of her state presidency, but her devotion and interest in Auxiliary activities never varied or waned. She was a devoted wife and mother of a doctor, and in her passing every Auxiliary member has lost a staunch advocate and a dear friend.

"Being a doctor's wife is both an art and a career." We believe this paragraph reprinted from the auxiliary "Bay Stater" of Massachusetts, is well stated and is in itself ample reason why the doctors themselves should be the first ones to insist upon their wives availing themselves of the Auxiliary training ground.

A new organization of Auxiliary members is called "S.A.M.A.," which means Student American Medical Auxiliary. It is composed of wives of medical students, who are anxious to learn the work of medical auxiliaries throughout our nation. At our recent meeting in Chicago, we met the president who addressed us. She told how anxious they were to acquaint themselves with Auxiliary activities, and to prepare themselves to take their place in our work when the time came. All of we

(Continued on page 1140)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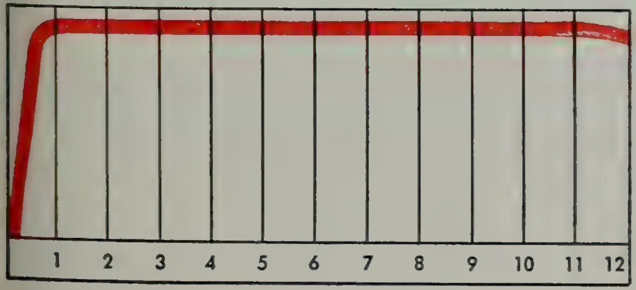

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Missouri State Medical Secretaries and Assistants Society

MARGARET SCOTT, *President*

On a state-wide basis it is with pleasure that the Missouri State Medical Secretaries and Assistants Society announces the organization of two new local or county groups. One such group had its installation meeting in Mexico, Missouri, November 17; and the other in Cape Girardeau on November 7. These two organizations are indeed welcome as they indicate the interest of the doctors in their communities as well as of the assistants in becoming acquainted with others in the same work, of establishing educational programs to benefit more of the women who work in doctors' offices, and to take part as organized groups in the activities of the communities. It is the aim of both of these societies to list all eligible women in both communities as members.

The American Association of Medical Assistants met in its first annual convention in San Francisco, California, October 4 to 6, inclusive. Nine members and one guest attended from Missouri. It is difficult to describe a gathering of some 500 medical assistants from 17 states. The business of the convention was handled expertly and efficiently by the House of Delegates and included putting the final touches on the Constitution and By-laws under which the Association shall operate in the years to come. The membership for the year 1957 was noted to be approximately 5,000.

The educational sessions of the convention were addressed by both professional people and by members of the Association. There were sessions devoted to the basic human relations, medical nomenclature, educational programs for members of state and local associations and discussions and descriptions of the activities of the various state organizations.

The editor of the *Bulletin* of the Missouri State Medical Secretaries and Assistants Society spoke to one of the sessions regarding the preparation, financing and editorial policy of state publications.

A representative of the Wisconsin Medical Assistants Society discussed the medical placement bureau that has been established in connection with the Wisconsin State Employment Service and with the cooperation of the Wisconsin State Medical Society. This has proved to be helpful both to the doctors and to those seeking employment.

One of the most outstanding papers was that of Miss Ruth Griner, of Cedar Rapids, Iowa, in which she discussed the advantages of membership in local, state and national medical assistant organizations. She pointed out the advantages of well presented educational programs, participation in community activities in an organized group, the opportunity and obligation to build good will between the doctor and his patients. These are only a few of the advantages membership brings, besides the obvious one of pleasure in getting to know others who do the same kind of work in the community, the state and the nation.

The California hosts and hostesses did not neglect the entertainment and good fellowship side of the convention. The American Medical Association, California Medical Association and the California Medical Assistants Society were hosts to the members of the convention at a reception "On Top of the Mark" that will be one of the lasting memories of those who were in San Francisco for the first time. It should be mentioned that the famous California "fog" was missing entirely that evening and the view was fabulous. Dinner in the Peacock Court of the Mark Hopkins Hotel will long be remembered for the beautiful decorations, the delightful dinner, the wonderful costumes of the hostesses and, certainly, for the address of Rev. Eric O'Brien, O.F.M., whose subject, "Medicine via El Camino Real," was one of the outstanding speeches of the convention. Rev. O'Brien's description of medicine as it was practiced in the days the Franciscan Monks established Missions in California was informative, interesting and entertaining.

The Installation Banquet the last evening of the convention was a delightful experience. It was at this gathering that awards for publications were made by the Association. Mr. Leo Brown of the A.M.A. presented awards for publications, both local and state, judged to be the best in several classes. It should be stated here that the *Bulletin* of the Missouri society received the award for being the best in its class.

It was at this banquet that the new officers were installed. The 1958 officers are: President, Mrs. Mary Kinn, Santa Ana, California; President-Elect, Mrs. Lucille Swearingen, Bartlesville, Oklahoma; Vice President, Mrs. Elvera Fischer, Chicago, Illinois; Recording Secretary, Mrs. Mabel Dove, Lynchburg, Virginia; Treasurer, Miss Catherine Rand, Kansas City, Missouri.

The 1958 convention will be in Chicago, October 31, November 1 and 2, 1958.

Woman's Auxiliary

(Continued from page 1136)

"oldsters" were impressed with this fine young woman, and as she stated the objectives of "S.A.M.A.," we felt that the future of the Auxiliary looked bright with such devotees. In all counties where medical schools are located these "S.A.M.A." groups should be organized.

This beautiful, sunny day belies that soon our calendar year will close, so to each of you a Merry Christmas, and every good wish for good health and much happiness in the year that lies ahead.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 54 December, 1957 Number 12

Isolation of Asian Influenza Virus

From Cases in St. Louis County, Missouri

G. O. BROUN, M.D., JOHN JOHNSTONE, M.D., BETTY CARLIN, M.D.,*
and ROSE RITA SCHMIDT, M.S.

The clinical picture of a case of influenza easily can be confused with that of other infections of viral or bacterial etiology. In order that we may chart accurately the spread of an epidemic of influenza it is necessary that the reports of the occurrence of "influenza-like" disease be corroborated by the isolation of the causative virus and positive serological reactions in infected individuals. To fix the time of spread of the present epidemic of Asian influenza to the vicinity of St. Louis, Missouri, it seems worth while at this time to give a report of the evidence we have secured from our study of this infection.

The virus laboratory of the Department of Internal Medicine of St. Louis University has been interested in observations of the occurrence and types of influenza infections found in the St. Louis area for the past fourteen years.[1] Our laboratory is one of the collaborating laboratories of the World Health Organization Influenza Study Program.

On May 28, 1957, Doctor Keith Jensen, Director of the World Health Organization International Influenza Center for the Americas, alerted the collaborating laboratories to the danger of the spread to this country of a new variant of influenza virus type A. This infectious agent had been causing extensive epidemics in Hong Kong, Singapore, Taiwan, Japan and the Philippines since April, 1957.

The causative virus was isolated by the U. S. Army's 406th Medical Laboratory in Japan and sent to Doctor M. R. Hilleman at the Walter Reed Army Institute for Research in Washington, D. C. Simultaneously with the warning of the impending epidemic, Doctor Jensen distributed this strain of influenza virus to the collaborating laboratories of the World Health Organization Study Program.

No difficulty was encountered in cultivating the virus in embryonated chicken eggs although the concentration of virus in the chorioallantoic fluid of the egg was never high when measured in terms of its ability to agglutinate chicken erythrocytes. The availability of this agent made possible tests for the presence of clinical cases of Asian influenza. Throughout the months of June, July and August, specimens collected from individuals with febrile illnesses with some resemblance to the clinical picture of influenza were subjected to examination, all with uniformly negative results.

In the first week of September, 1957, one of us (Johnstone) became aware of a febrile illness which had appeared in epidemic form among the students at St. Joseph's College in Kirkwood, Missouri. He contacted the St. Louis County Health Department and with Doctor Betty Carlin began a study of the outbreak. The students at the College had recently returned from summer vacation and a number had had some contact with suspected cases of Asian influenza in the vicinity of their homes just prior to coming to St. Louis. We were able to secure promptly throat washings from eighteen of the students who became ill between the 6th and 8th of September. An initial blood specimen was secured at this time and a second specimen was collected on September 20, 1957.

The throat washings were planted into the amniotic sac of embryonated chicken eggs. The fluid secured from the first transfer gave only dubious evidence of the presence of influenza virus. In the second transfer, however, the fluids from three cases showed the ability to agglutinate erythrocytes of guinea pigs and chickens, suggestive of the presence of influenza virus. It was necessary next to test the effect of antisera prepared against various strains of influenza virus on this agglutination phenomenon. Table I shows the results of testing the egg fluid inoculated with material from one of the Kirkwood cases. The ability of this fluid to agglutinate erythrocytes in the presence of antisera against influenza virus strains PR 8 '34 A, Weiss '43 A, Denver '57 A′, Norfolk '52 B, J.J. '50 C, and Sendai '52 D as well as antiserum against the Asian Strain, Japan 305 '57 A was observed. Only the Asian antiserum showed the power to inhibit the agglutination of the erythrocytes in this test and it did this in a dilution greater than 1:240. Since the viruses chosen for the test cover well the field of influenza viruses that are likely to be present, this indicated that the virus in the egg fluid was Asian virus.

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* From the St. Louis County Health Department.

From the Virus Laboratory of the Department of Internal Medicine, St. Louis University School of Medicine, with the cooperation of the St. Louis County Health Department. This investigation was supported by the James B. and Ethel D. Miller Foundation for the Study of Pulmonary Disease.

TABLE 1

TEST OF CHORIOALLANTOIC FLUID FROM EGG INOCULATED WITH THROAT WASHINGS FROM CASE 3

Designation of Virus Against Which the Antiserum Was Prepared		*Dilution of Antiserum*				
		1/15	*1/30*	*1/60*	*1/120*	*1/240*
Swine	1931	—	—	—	—	—
PR 8 A	1934	—	—	—	—	—
Weiss A	1943	—	—	—	—	—
Denver A′	1957	—	—	—	—	—
Norfolk B	1952	—	—	—	—	—
J.J. C	1950	—	—	—	—	—
Sendai D	1952	—	—	—	—	—
Asian Japan 305 A	1957	+	+	+	+	+

— Means that the antiserum failed to inhibit hemagglutination.

+ Means that the antiserum inhibited hemagglutination.

By the time the egg fluids had shown the presence of virus the convalescent blood specimens had been secured for comparison with the specimens taken in the acute stage of infection. The result of the tests with the eighteen paired serum specimens is shown in Table 2. In this experiment the ability of each patient's serum specimen to inhibit the agglutination of chicken cells by known influenza viruses was measured. The viruses used were:

(1) One of our own Kirkwood isolations, Asian, St. Louis 1 '57 A.

(2) Asian Japan 305 '57 A (which after isolation in eggs had been passed once through a ferret and four times through mice and then back into eggs).

(3) Denver '57 A′.

(4) St. Louis '50 A′.

(5) Weiss '43 A.

(6) PR 8 '34 A.

(7) Swine Influenza, '31.

(8) D. C. '55 B.

(9) Sendai '52 D.

It appears noteworthy that of the eighteen paired sera run against our Kirkwood isolate, none had antibodies against this virus in the acute phase serum specimen. Thirteen had antibodies against this virus in the convalescent serum specimen, although in six instances the titre is only 1:15. The evidence is sufficient to show that these individuals were reacting by antibody formation against this virus.

In the case of the known Asian Japan 305 '57 A virus it is seen that eleven out of twelve cases which showed no antibodies in the initial specimen had developed antibodies in the second serum specimen showing that they had developed during the course of the illness. Seven cases which had an initial titre against Asian Japan 305 Virus between 1:7 and 1:30 all showed a higher titre in the second specimen and four show a fourfold or greater increase in titre. This is proof that these patients were suffering from Asian influenza and supports the identification of our isolate as an Asian strain.

Exposure of an individual to an attack of influenza causes an antibody rise not only against the causative virus but also an "anamnestic" rise in antibodies against related viruses. It is worthy of note that such rises are absent in the tests shown in table 2 with a few exceptions. Of the seven strains studied in addition to the two Asian strains, three, PR 8 A '34, D. C. '55 B and Japan Sendai 52 D show no rising antibody titres. Denver '57 A′ and Weiss '43 A each show only a single twofold antibody rise, which is not likely to be of any significance.

In the case of the Swine influenza virus, six patients show an increase in titre from 0 to 1:15. This may indicate sufficient antigenic resemblance between the Asian virus and the Swine virus to cause a slight anamnestic reaction. Three students showed the presence of a low titre of swine antibody in their initial specimen although they had no antibody titre in this serum specimen against the Asian virus. In the age group in which these students lie, antibodies against Swine virus are rare and it is surprising that as many as three cases had Swine antibodies in the acute phase specimen.

Virus strain St. Louis '50 A′ which has some serological relationship to Swine influenza virus[2] shows a 0-15 rise in antibodies in case No. 12 only.

Relatively high antibody titres were found in several cases against Weiss '43 A, PR 8 '34 A, D. C. '55 B, and Sendai '52 D strains, but no rising titres were found.

One patient of this group, case No. 18, is of considerable interest. It will be noted that he differs from all other cases in the group in that he has no antihemagglutinin antibodies against any of the virus strains tested. One would immediately suspect that he represents a case of agammaglobulinemia. However an electrophorectic pattern of his plasma proteins was obtained and he has a perfectly normal content of gamma globulin. One might also think that an individual with this apparent difficulty in forming antibodies would have poor resistance to influenza infection and therefore he should have had one of the more severe clinical cases. Actually while his illness appeared the same as that involving other students it was one of the less severe cases with a relatively low fever and a short duration of illness. This illustrates the fallacy of considering the antihemagglutinin reaction as an infallible measure of the patient's resistance to influenza infection. It also indicates that tests run on sera before and after vaccination, using this test, may not always measure the effectiveness of a vaccination program.

The serological findings and the general clinical characteristics of this localized outbreak appear similar to others which have been reported elsewhere in the country.[3, 4] The earliest cases were noted on September 6 and no new cases developed after September 23. The attack rate was quite high, seventy-three out of one hundred and forty students were affected. Of considerable interest is the fact that in spite of this high incidence among the students, none of the faculty and none of the older individuals employed at the college were affected. Some degree of immunity in the older individuals appeared to be present. This raises the question whether a virus of somewhat similar antigenic characteristics may not have been present in this area in past years. The cross reactions with Swine influenza virus noted in the tests on the affected students may be of some significance in this regard. Swine influenza, or a related virus is considered by many to have been the antigenic type prevalent during the great pandemic of 1918.

The study of this outbreak at Kirkwood, Missouri, shows that Asian influenza infection travelled from its point of recognition in Hong Kong to the vicinity of St. Louis, Missouri, in about five months. Considering the speed of air and sea transportation now available, this is not a remarkable rate of spread. It is probable that the spread in the Northern Hemisphere might have been more rapid if the disease had occurred in the early part of the winter rather than in the late spring. Already country wide epidemics have occurred in many areas of the Southern Hemisphere such as Australia and New Zealand, Chile, Argentina and Uruguay. In this country the picture is still one of spotty outbreaks up to the middle of October although some county wide epidemics have been noted. In St. Louis City and County the incidence of influenza-like disease has been increasing gradually since the middle of September. A number of additional school outbreaks began about October 1 and continue to be reported. We now have secured serological evidence of the presence of this infection in additional cases from the community who were not students in schools or colleges, so that older adults are by no means all immune. An intense community wide epidemic has not yet occurred seven weeks after the Asian infection made its appearance in Kirkwood in St. Louis County.

TABLE 2
ANTIHEMAGGLUTININ TESTS OF PAIRED SERA
FROM ST. JOSEPH'S COLLEGE, KIRKWOOD, AGAINST INFLUENZA VIRUSES

Patient Number	*Virus Strains Tested*																	
	Asian St. Louis 1 '57 A		*Asian Japan 305 '57 A*		*Denver 1 '57 A'*		*St. Louis '50 A'*		*Weiss '43 A*		*PR 8 '34 A*		*Swine '31*		*D. C. '55 B*		*Japan Sendai '52 D*	
	Acute Serum	*Conv. Serum*	*Acute Serum*	*Conv. Serum*	*Acute Serum*	*Conv. Serum*	*Acute Serum*	*Conv. Serum*	*Acute Serum*	*Conv. Serum*	*Acute Serum*	*Conv. Serum*	*Acute Serum*	*Conv. Serum*	*Acute Serum*	*Conv. Serum*	*Acute Serum*	*Conv. Serum*
1	0	90	0	240	0	0	0	0	960	960	15	15	0	15	30	15	30	30
2	0	240	7	180	0	0	30	30	0	0	15	15	0	15	120	60	120	120
3*	0	30	0	120	0	0	60	60	60	30	0	0	0	0	60	60	240	240
4	0	60	0	120	0	0	0	0	0	0	0	0	0	15	120	120	30	30
5	0	15	0	120	0	0	60	60	0	0	0	0	0	0	120	60	175	175
6	0	0	0	120	15	15	15	30	3,840	3,840	240	240	30	15	15	15	180	180
7	0	30	15	120	0	0	15	15	0	0	0	0	0	0	30	30	120	120
8	0	30	30	120	0	0	30	30	0	0	0	0	0	0	60	60	30	30
9	0	30	30	120	0	0	15	15	960	480	30	30	0	15	15	15	135	135
10	0	15	0	60	0	0	30	30	0	0	0	0	0	0	240	240	120	120
11	0	15	0	60	0	0	30	30	120	240	60	60	0	0	15	15	60	30
12	0	30	0	30	0	15	60	60	3,840	3,840	480	480	15	30	120	120	30	30
13	0	0	0	30	0	0	0	0	0	0	0	0	0	15	120	120	135	135
14	0	0	0	15	30	30	15	30	960	960	60	60	0	15	15	15	60	60
15*	–	–	0	15	30	30	240	240	960	960	60	60	30	30	15	15	120	120
16	0	15	30	60	0	0	30	30	0	0	0	0	0	0	15	15	135	75
17*	0	15	15	30	0	0	0	0	120	120	60	60	0	0	60	30	240	120
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* Indicates a virus isolation was secured from this case.

Children With Increasing Myopia

Treated With Bifocal Lenses

CASE REPORTS

PAUL W. MILES, M.D., *St. Louis*

MYOPIA IN CHILDHOOD can become an important problem when it increases one or more diopters per year. It seems popular right now to believe that such myopia is hereditary and that one cannot honestly do anything about the environment or abuse of the eyes with any hope of changing the rate of myopization. There is general acceptance of such measures as full correction with glasses, attention to nutrition and external eye inflammations and ordinary visual hygiene such as good lighting, posture and proper working distance.

However, there has been considerable antagonism against the use of bifocals for myopia in children. Like most others, I have taken them off in most cases when they have been prescribed elsewhere. It was considered an undercorrection of the myopia. All myopia begins with undercorrection—before the first glasses are prescribed. How then can undercorrection stop it?

However, at least two prominent ophthalmologists state that bifocal lenses may in some children, stop the progress of myopia. Edwin F. Tait[1] wrote, "While it has not been conclusively demonstrated, . . . there is probably some truth in the general conviction of refractionists that excessive ciliary activity, especially in younger individuals, should be avoided in order to reduce the possibility of a rapid increase in the refractive error. . . . In a number of individual cases of children, the prescription of bifocals was promptly followed by a decrease in the rate of progression, but when the bifocal additions were removed for a time, the former rate was resumed. . . . I, therefore, consistently prescribe bifocals, with a full concave lens correction for distance and an arbitrary addition of +1.00 or +1.50 in all myopic cases in which there is real evidence of untoward progression." The late Joseph I. Pascal fully agreed.[2]

I have searched the literature carefully and have found no actual case reports of children treated over a period of years with bifocals. Since only a series of case studies can resolve the difference of opinion, the following case reports are presented for a start on such a project.

Bifocal glasses in this series were restricted to children who were increasing in myopia one or more diopters per year. Their parents were eager to try anything, could afford the increased lens cost and recognized the experimental nature of the treatment. I had, in each case, observed the effect of ordinary glasses with the strong recommendation to learn the habit of reading at 17 inches distance for a year or more. All bifocal lenses had a 28 millimeter straight top segment in power +.75 or +1.00 diopters. In all cases, the distance lenses were decentered out 2 millimeters while the segments were decentered in an excess of 2 millimeters to create slight base-in prism.

For controls, I have added 50 children who have been followed through the last twenty years in

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From the Department of Ophthalmology and the Oscar Johnson Institute, Washington University School of Medicine.

Asian Influenza Virus—Continued

SUMMARY

(1) Asian influenza virus was demonstrated in a school epidemic in St. Louis County, Missouri, during the first week in September, 1957. Its presence was indicated by virus isolations as well as serological tests.

(2) The case incidence among students was 52 per cent but older adults at the same institution failed to show evidence of infection.

(3) A tendency for infected individuals to show a slight anamnestic reaction against Swine influenza virus and not against Denver A′, 1957, Weiss A, 1943 and PR 8 A is of some interest.

(4) A student with normal gamma globulin content in his serum failed to show antihemagglutinins against any of the strains of influenza virus tested either in the acute phase or convalescent phase serum. He did not have a severe clinical illness.

BIBLIOGRAPHY

1. Muether, R. O., Broun, G. O., LeGier, M., and Higgins, K.: Isolation and Identification of the Influenza Virus From Clinical Cases, Bull. St. Louis Med. Soc. **38**:264 (March) 1944.
2. Broun, G. O., and Schmidt, R. R.: Epidemiology of Influenza as Demonstrated by a Study of Serum Pools, A.M.A. Scientific Exhibits, New York; Grune and Stratton, pp. 150-158, 1956.
3. Jensen, Keith E.: New Set of Type A Influenza Viruses, J.A.M.A. **164**:2025-2029 (August) 1957.
4. Burney, LeRoy E.: Influenza, J.A.M.A. **164**:2029-2033 (August) 1957.

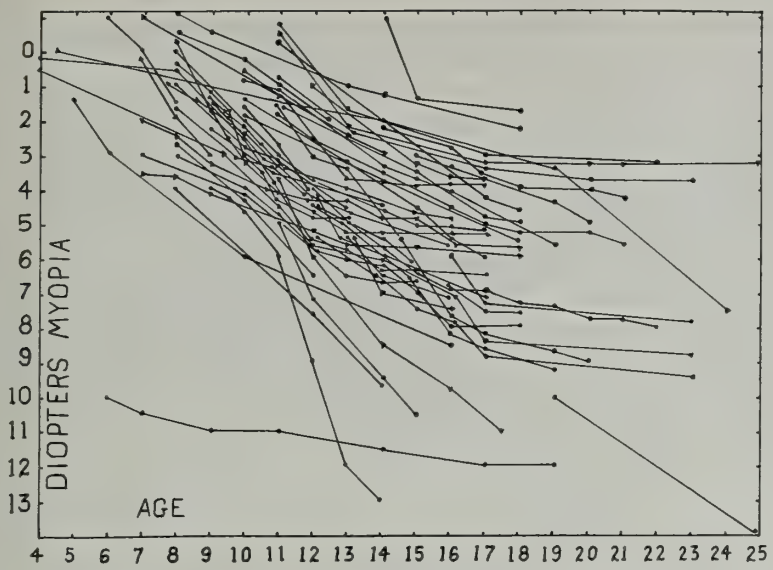

Fig. 1. Myopization curves of 50 clinic patients not given bifocal lenses. Any astigmatism was converted to the equivalent.

the Washington University Eye Clinic (fig. 1). The data show that nearly all myopic children increase in myopia at a rate remaining fairly constant, but which gradually approaches zero at age 17. The rate of myopization and the age of onset generally determine the final degree. In my experience, medical students who study long hours continue to become more myopic, even though they may be 35 years of age.

Figure 1 shows seven exceptions in which the myopization apparently ceased abruptly at about age 13. Two private cases not treated with bifocals were included also as controls, cases 4 and 5. One of these followed the average myopization curve, but the other ceased myopization abruptly (fig. 3, A. M. W.). This change in myopization without bifocals at age 11 shows that conclusions on this small series must be cautious.

REPORT OF CASES

Case 1. P. M., the son of an opthalmologist, was first examined at the age of 6 when he was 1 diopter hypermetropic. He started wearing glasses as soon as the myopia was noticed, October 1947. Single vision lenses were worn until age 13, when he was fitted with bifocals. Figure 2 shows the myopization rate to change from 1 diopter per year to about 0.25 diopters per year. Like many myopic children, this boy has spent and is spending six hours or more each day reading books. No effort was made to reduce this, since he habitually used a 17 inch distance.

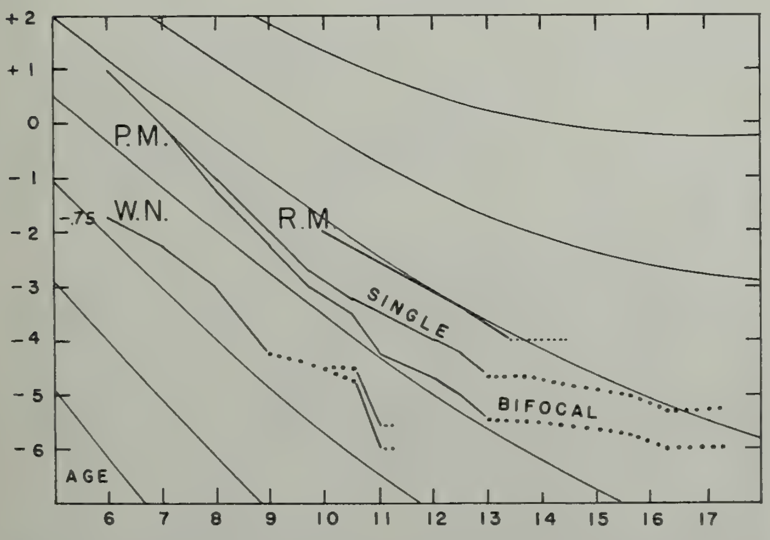

Fig. 2. Myopization curves of three private patients. Solid lines indicate use of single lenses; dotted lines indicate use of bifocals.

There is moderate myopia in his father, uncle and cousin (case 2.) His muscle balance has remained orthophoria at distance, and 4 prism diopters of exophoria at near (normal). When bifocals were provided, the eyes became relatively esophoria at near distances. The optic disks now show slight crescent, no conus. The corneas are spherical, 44.50 diopters in each eye. He took a spurt of growth in weight and height at the age of 13 when myopization ceased. At present, his height is 5 feet 8 inches, weight 130 pounds. His present glasses are: O.D. -5.75 -.50 x 100; O.S. -5.00 -.75 x 60, add +1.00.

Case 2. R. M., was first fitted with glasses at the age of 10, and as seen in figure 2, followed the average myopization curve. Like his cousin, he abruptly stopped at age 13 when bifocals were fitted. There has never been as much as .25 diopters astigmatism. When first tested, he had orthophoria at distance and at near (relative esophoria). In July, 1956, he had with glasses 2 prism diopters of exophoria at distance and 4 of exophoria at near. In July 1957, the near had changed to 2 prism diopters exophoria. He is now aged 14½ years, height 5 feet 11 inches, weight 140 pounds.

Case 3. W. N., is the son of an ophthalmologist whose myopia is -4.00 diopters in each eye and whose brother has -7.00 diopters of myopia in each eye. W. N. started wearing glasses at the age of 6, and as shown in figure 2, his myopization stopped abruptly with the use of bifocal lenses for one year, and started just as suddenly when they were taken off for four months. Because of his athletic activities, he wanted plastic lenses which did not come with a bifocal segment. Since the myopia increased 1.25 diopters in four months, it is needless to say that bifocals were immediately put back on, May 11, 1957. He has not increased since. In figure 2, the graph was displaced down 1 diopter to keep clear of the graph for P. M. There has been no astigmatism nor unusual medical history.

Case 4. M. J. S., female, aged 8, wore O.D. +.50 -2.75 x 15; O.S. -1.00 -2.75 x 15. She was never given bifocals, and the myopization is shown in figure 3. She spent most of her time reading and her parents were unable to get her to increase the working distance beyond 13 inches (19.5 centimeters). Her near point of accommodation was 14 centimeters, and she had esophoria from 8 to 14 prism diopters, 4 to 6 esophoria for near. At present, she work as a bookkeeper and wears: O.D. -6.25 -1.25 x 10; O.S. -7.50 -2.00 x 15.

Case 5. A. M. W., female wore at the age of 8: O.D. -1.50; O.S. -1.50 +.25 x 90. With this she had 1 prism diopter of exophoria at distance and 2 exophoria at near. Her mother is about -3.00 diopters myopic in each eye. She showed some temporal crescent by the age of 10, but at the age of 11, myopization stopped (figure 3). Since that time she has grown rapidly, and at the age of 15 is 5 feet 3 inches tall, and weighs 120 pounds. Her muscle balance with glasses was at distance 1

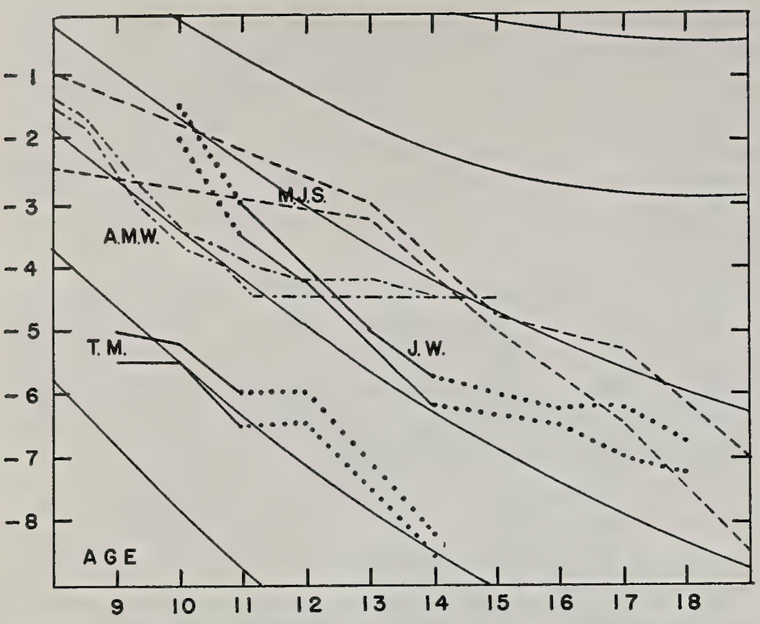

Fig. 3. The myopization curve of M. J. S. conforms to the average line derived from figure 1. That of A. M. W. shows spontaneous cessation at age 11, without bifocals. That of J. W. shows no effect at age 10 with +2.50 add, but a definite effect at age 14 with +.75 add. That of T. M. shows no sustained effect.

prism diopter exophoria until 1957, when it was 2. For near, she changed from 4 prism diopters of esophoria before age 11 to 4 prism diopters of exophoria since. This was a spontaneous cessation of myopization which makes me wary of conclusions about the effect of bifocals or near work.

Case 6. J. W., male, was given bifocals by someone else at age 10. I took them off one year later because he had increased myopia of 1.50 diopters (figure 3). The original bifocals had an excessive reading addition: O.D. -1.00 -1.00 x 180; -1.25 -1.50 x 170, add +2.50. He continued to exceed the average myopization, so at the age 14 he was given +.75 reading addition. From then on the rate was less than .25 diopters per year. There has been but slight myopic crescent. He had 3 prism diopters of esophoria at distance with glasses every year. At near, he first had slight esophoria, but since the age of 13 this has changed to from 3 to 6 prism diopters of exophoria. At present, he wears O.D. -5.25 -3.00 x 5; O.S. -6.00 -2.25 x 170, reading add +1.00. If the segment has anything to do with myopization, one could suspect that the +2.50 add was so strong that the child used the distance portion for reading. I know by observation that this happened in the next case, case 7, even with a +1.00 addition. Here, also, the results were doubtful.

Case 7. T. M., is the son of a myopic physician. At the age of 9, he was wearing O.D. -3.75 -2.50 x 10; O.S. -3.50 -1.75 x 180. He has been short, fat, slow moving, and has had difficulty in school due to slow reading. At age 10 to 12, he was sent to military school which did not help. He complains of eye strain, blur, headache, and has never been able to see better than 20/30 with glasses. Crescent formation began in 1956, and there has always been some general retinal degeneration of a translucent grainy appearance. His amplitude of accommodation has been inadequate, but bifocals were not prescribed until a year after I first saw him. I have observed this boy in his home. He usually wears the glasses on the tip of his nose, and does reading and writing at about 7 inches working distance, even now. He has had esophoria of about 6 to 8 prism diopters, both distance and near with glasses. His pupils have always been small for a myopic child, and measure about 2 millimeters in room illumination. His weight now is 160 pounds and his height 5 feet 7 inches. His present glasses are O.D. -7.00 -3.25 x 20; O.S. -6.50 -3.50 x 180 with +1.00 reading addition. I think the segments should be stronger and higher.

Case 8. K. R. is the son of a physician. His father has slight hypermetropic astigmatism, and his mother has 3.50 diopters of mixed astigmatism. His first prescription was: O.D. +1.50 -1.50 x 10; O.S. +2.00 x 150. As indicated in figure 4, his myopization rate did not change when bifocals were introduced at the age of 8. K. R. has always been under average weight and height. In childhood, he had acrodynia and considerable photophobia. He has had reading difficulty, and takes remedial reading each summer. He complains of headache and eye strain. Since the age of 6, he has had 3 to 4 prism diopters of esophoria at distance, and 4 to 11 at near with glasses. This over-convergence was not relieved sufficiently by the bifocals.

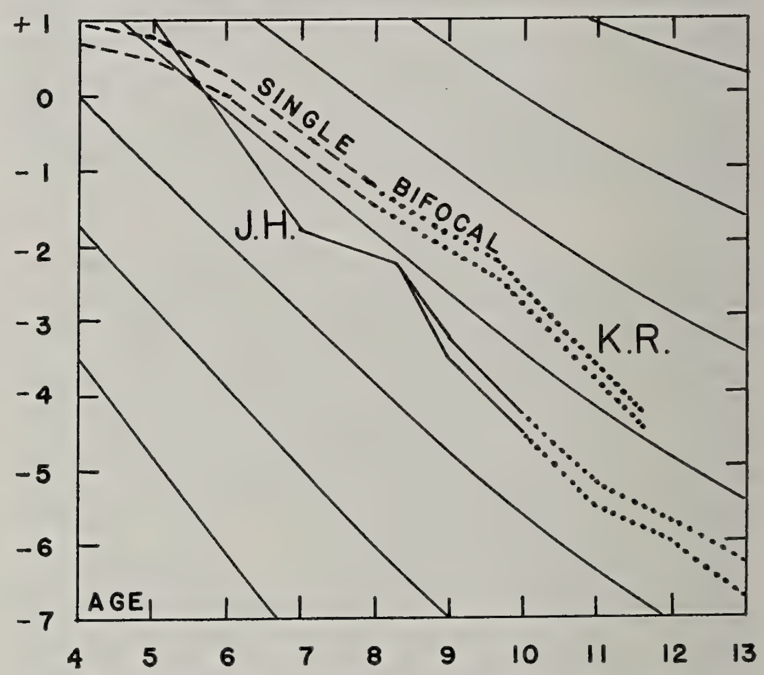

Fig. 4. Myopization curves of two private patients which show no change whatever from use of bifocal lenses.

Case 9. J. H. is the son of a dentist. His father and mother are myopic: -1.00 and -3.00 respectively. He was first examined while still hypermetropic and orthophoric. Myopic crescents began to appear at age 11. Since wearing glasses at age 7, he has had esophoria which was not altered by the bifocals provided at the age of 10.

It is evident from figure 4 that his myopization curve follows the average. He has had no astigmatism. He has remained quite small in stature, which is a family trait.

Case 10. J. B., female, was wearing -2.75 spheres bilateral when first examined at the age of 11 years. Her father wears about the same, but her mother wears: O.D. -6.25; O.S. -5.00 -.25 x 180. Figure 5 shows how her myopia became increasingly worse until at age 12, bifocal lenses were prescribed. Since then there has been no noticeable change in visual acuity, and she is wearing the same first bifocals. She has

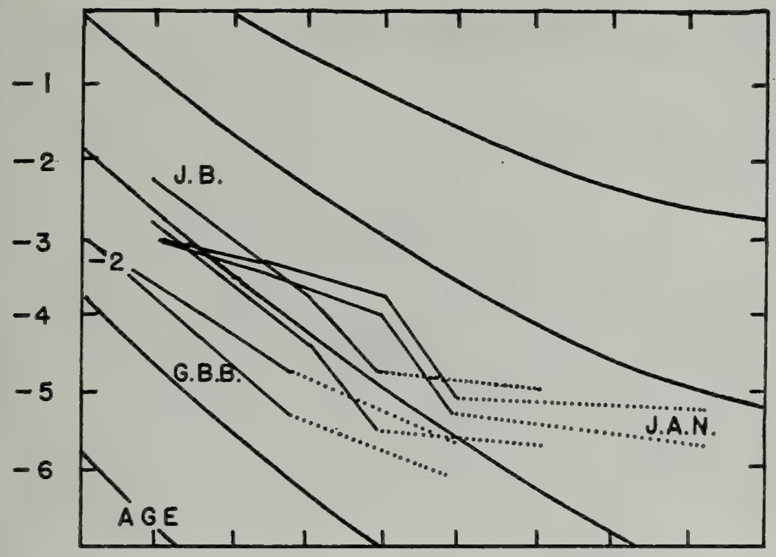

Fig. 5. Myopization curves of three private patients. G. B. B. changed in rate from 1 diopter per year to one half diopter per year.

had 3 to 4 prism diopters of esophoria at distance with full correction, distance and near, which has not changed. The glasses prescribed at age 11 had base-in prism, but this alone did not help.

Case 11. G. B. B. is a brother to case 10. He showed a similar course and received bifocal lenses at the age of 11. The rate of myopization slowed just slightly. The rate of 1 diopter per year became about ½ diopter per year. Unlike his sister, he has 6 to 8 prism diopters of exophoria at distance and near with full correction.

Case 12. J. A. N., female, was first seen at age 9 with -3.00 diopters myopia. There was no family history of myopia, but one aunt had congenital cataracts. In the year prior to the use of bifocals, she grew three inches in height and gained seven pounds. During this year she became 1.5 diopters more myopic. Since wearing the same bifocal lenses the past three years, she has changed less than .50 diopters.

DISCUSSION

Average rates of myopization were determined over a period of years by studies of clinic cases. The final degree of myopia depended on the age of onset and on the rate. It was shown that the rate of myopization is fairly stable, diminishing gradually until about age 17 years. Exceptions occurred in 14 per cent of the 50 control cases, in that before the age of 13, myopization slowed abruptly. Similar decrease in myopization rate occurred at the time bifocal lenses were provided in 60 per cent of 10 myopic children reported here.

The series is, of course, too small for statistical analysis. However, of the four children whose myopization rate did not change, one could not overcome his habit of reading at seven inches distance, and another had a serious physical disability. Most significant was the fact that the change in myopization rate in the six cases followed exactly the use of bifocals. Case 3, W N., is significant in that his bifocals were removed for four months during which myopia increased 1.25 diopters. They were then replaced, and the myopia has not increased in two months.

I postulate, therefore, that myopia may depend not only on heredity, but also on other factors. I assume that there is a myopic growth mechanism which under certain conditions will stop myopization prematurely. This stop mechanism may depend on heredity, but it might also depend on some biochemical event in the body, or on some change in visual habits or mechanical device such as a bifocal segment.

SUMMARY AND CONCLUSION

Of 10 cases of increasing myopia treated with bifocals before the age of 13, six showed an immediate and sustained decrease in myopization rate. However, such a decrease in myopization rate occurs in about 14 per cent of myopic children not wearing bifocals. Since it is not known how to bring about this desirable effect without bifocals, this harmless treatment deserves further use and research. It should be restricted to those children whose myopia is increasing 1 diopter or more per year.

100 N. Euclid

BIBLIOGRAPHY

1. Tait, Edwin F.: Textbook of Refraction, W. S. Saunders, Philadelphia, 1951, pages 60-61.
2. Pascal, Joseph I.: Studies in Visual Optics, C. V. Mosby, St. Louis, 1952, page 287.

NEW MEDICARE CARDS IN JANUARY

A new military identification card for dependents and other persons requiring military identification goes into effect in January. It also will be used to establish eligibility for Medicare.

A bulletin just issued by the Missouri State Medical Association cautions physicians to be careful and see that the person being treated is eligible for Medicare.

Item 14 "Medicare Care Facilities Authorized" on the reverse side of the card should be marked "Yes" preceding the word "Civilian." When civilian care is not authorized, Item 14 "Civilian" will be blocked out.

Each dependent over 10 years of age will be issued a card. For those under 10, identification can be made by the mother's card or the service identification of the sponsoring serviceman.

TREATING ARMY MEN ON LEAVE

The Army said that sometimes physicians and hospitals are not paid promptly for treating military personnel on authorized absences because the paperwork was not completed properly.

Complete instructions on how and where to bill are printed on the reverse side of Army form No. 31 "Request and Authority for Absence." Each military person should have this form with him, if he is on an authorized absence.

Physicians also are urged to assist the military patient get in touch with proper military authorities as soon as possible.

The Army cautions that the payment of bills for military personnel has nothing to do with the Medicare program for dependents.

Disturbances of the Heartbeat

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ALL AGE GROUPS and both sexes are equally prone to disturbances of the heart beat. Arrhythmias occur in normal as well as abnormal hearts. Irregular heart action may produce no symptoms in some patients and be the cause of great anxiety in others. Disorders of the heart beat may be quite harmless at times, but lead quickly to cardiac failure and death in some patients. Correct diagnosis of the type of arrhythmia is essential before proper therapy can be instituted. The final diagnosis depends upon the electrocardiogram findings.

I wish to give in this paper a short summary of the more important disturbances of the heart beat, their diagnosis and treatment.

SINUS ARRHYTHMIA

Sinus arrhythmia is the only normal, physiologic cardiac irregularity. It is caused by respiratory variations of the vagus tone, related to cardiac filling (Bainbridge reflex). In the electrocardiogram all QRS complexes are preceded by P waves (sinus beats). The only change is the time variation of the individual beats.

Diagnosis—This phasic variation of the heart rate is usually easily diagnosed. The speeding up of the heart during inspiration and slowing during expiration is quite characteristic. The irregularity at times is marked and on superficial examination may be confused with more serious disorders such as auricular fibrillation, heart block and prematurities. Speeding up the heart with exercise will do away with this arrhythmia. In all doubtful cases the electrocardiogram will clarify the diagnosis. Digitalis, by increasing the vagus tone, may produce or exaggerate this arrhythmia.

Electrocardiogram—P waves of normal configuration are regularly followed by QRS complexes. The PR interval remains constant in any given lead. The cycle length between PP or RR intervals varies throughout the tracing, speeding up with inspiration and slowing down with expiration. The pacemaker for this mechanism remains in the SA (sinoauricular) node throughout.

Treatment—No treatment is necessary for this type of arrhythmia.

SINUS BRADYCARDIA

Sinus bradycardia is the result of increased vagus tone leading to infrequent discharges of the SA node. The rhythm is regular but the rate is 50 per minute or less. The rate can usually be increased by exercise, atropine or any factor which decreases vagal tone. Sinus bradycardia may occur during vomiting, fainting and in vaso-vagal attacks. It is encountered with increase of intracranial pressure, in patients with jaundice and during convalescence from acute fevers. It has been observed in manic depressive states, in myxedema and occasionally in myocardial infarction, also in hypersensitivity of the carotid sinus. Sinus bradycardia is not uncommon in perfectly healthy, normal individuals and is found frequently in older people.

As a rule, sinus bradycardia produces no symptoms unless the rate drops too low, when syncopal attacks may occur.

Diagnosis—The diagnosis depends on the regular heart rate of 50 or less per minute. Definite differentiation from partial or complete heart block, AV (auriculoventricular) rhythm, AV dissociation, and others, is possible only by electrocardiogram.

Electrocardiogram—The P waves are of normal contour (sinus beats). They are regularly followed by QRS complexes. The PR interval is normal and persistent throughout a given lead. The cardiac rate is regular and slow, 50 or less per minute.

Treatment—No specific treatment is necessary in most cases of sinus bradycardia unless there are symptoms of dizziness and fainting. In these patients ephedrine sulfate, 25 mg. three to six times daily, will usually increase the ventricular rate sufficiently to alleviate the symptoms. Ephedrine in oil (1:500) 1 cc. given intramuscularly once daily has been useful in some of these cases. Atropine sulfate, 0.5 mg. orally, subcutaneously or intramuscularly and repeated as necessary is particularly beneficial in patients with hypersensitive carotid sinus. Other underlying causes (increased intracranial pressure, fever, myxedema) should be corrected if possible.

SINUS TACHYCARDIA

A regular heart rate of more than 100 per minute with the pacemaker within the SA node constitutes sinus tachycardia. In the adult, rates over 200 are rarely encountered because the AV node is usually unable to conduct at such high rates. Sinus tachycardia is usually the result of decreased vagal tone or increased sympathetic tone. Emotion, exercise, anoxia, hyperthyroidism, fever, anemia, hemorrhage and neurocirculatory asthenia are frequent causes of sinus tachycardia. Congestive heart failure, myocardial infarction, diseases of the endocardium and pericardium often are

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accompanied by sinus tachycardia. Adrenalin, atropine and tobacco are prone to produce fast heart action.

There are some persons who persistently have a cardiac rate of over 100. The cause for this cannot always be determined. It is possible that this is normal for some individuals.

Diagnosis—Sinus tachycardia is easily recognized in patients whose pulse and heart rate are equal and rapid, above 100 per minute. In tachycardia it is particularly the diastole in the cardiac cycle which is shortened. Differentiation between the first and second heart tone may become difficult. At normal heart rates the first tone follows the longer pause and the second heart tone follows the shorter pause in the cardiac cycle. Also the first heart tone, particularly in the mitral area, is louder than the second tone. In severe tachycardia the pauses of the cardiac cycle approach equal duration and both heart sounds may have equal intensity. Under such circumstances differentiation between first and second heart sounds, also between systole and diastole, may become difficult. Stimulating the carotid sinus or having the patient take a deep breath may temporarily slow the heart so that differentiation again becomes possible.

Electrocardiogram—The heart rate is rapid, above 100 per minute, rarely exceeding 150. The rhythm is regular. The P waves are of normal contour and they are regularly followed by QRS complexes. The PR interval is within normal limits. The interval between T and P, representing diastole, is shortened. In severe sinus tachycardia the P wave may merge with the preceding T wave.

Treatment—Sinus tachycardia itself requires no therapy. Digitalis is only indicated if heart failure exists. Reassurance, sedatives and psychotherapy are necessary in anxious patients with cardiac neurosis. A diligent search for underlying causes like infection, thyrotoxicosis, malignancies, anemia and such should be made.

SINUS PAUSE

In this condition the sinoauricular node fails to initiate an impulse and the auricle as well as the ventricle stands still for a variable period of time. It is a rare condition most commonly the result of hypersensitivity of the carotid sinus, overdigitalization, toxicity from quinidine, myocarditis and hyperkalemia. Pressure on the vagus by a mass, a retrotracheal thyroid or a diverticulum of the esophagus may produce a sinus pause. In some cases a prolonged sinus pause will be terminated by an escape beat originating in a subsidiary pacemaker like the AV node or the Bundle of His.

Diagnosis—The auscultatory findings in sinus pauses are complete cessation of cardiac activity for variable periods of time, after which a normal rhythm is again resumed. If the pause is brief, the patient may experience no symptoms or only a wave-like sensation, but, if prolonged loss of consciousness, Adams-Stokes syndrome and epileptic-like convulsions will occur. Death is rare because a subsidiary pacemaker usually takes up the heart beat till the SA node is recovered.

Electrocardiogram—Typical findings consist of complete absence of P waves and QRS complexes for variable periods, representing auricular and ventricular standstill. After one of these pauses an escape beat, originating in the AV node or Bundle of His, may occur. The pauses representing this arrhythmia are not multiples of the normal RR distances of a given electrocardiogram.

Treatment—Correction of the condition producing sinus pauses (as tumors pressing on the vagus, diverticulum of the esophagus) is essential. During a prolonged cardiac standstill forceful thumping with the fist against the chest wall is a useful and frequently successful method in restoring the heart beat. Prophylactically, ephedrine and atropine will often be helpful. In a few serious cases denervation of the carotid sinus has resulted in cure. Conditions known to bring about attacks like prolonged standing, sight of blood, overheated and crowded rooms and peculiar odors are to be avoided if possible.

Cardiac puncture and injection of adrenalin into the heart is a serious procedure but may at times be necessary to whip the heart back into action. Cardiac standstill during operation is successfully treated by cardiac massage. The electric pacemaker, by delivering rhythmic shocks through the closed thoracic wall, has recently been successful in restoring the heart beat when other methods have failed.

SINO-AURICULAR BLOCK

An impulse initiated in the SA node may be blocked within the structure of the node or in its vicinity, preventing conduction to the auricle and ventricle. As a result one or more complete cardiac cycles will be absent. The pause produced by sino-auricular block should be an exact double or multiple of the RR intervals in a given lead, displaying otherwise a normal sinus mechanism. This abnormality of the heart beat is to be differentiated from sinus arrest, discussed previously, in which no impulses originate in the SA node and the heart stands still for variable periods of time.

Diagnosis—Sino-auricular block usually produces no symptoms unless the period of the block is prolonged; then it will lead to syncope. Palpitation, dizziness and faintness may result. A prolonged pause is frequently terminated by an escape beat originating in the AV node, Bundle of His or other subsidiary pacemaker. The diagnosis may be suspected if on auscultation a pause occurs which is a multiple of the existing cardiac rate. Tapping the foot synchronously with the rhythm of the heart will be helpful. No auricular sounds are audible, nor is a pulse wave detectible in the juglar vein as in the AV block. Definite diagnosis depends on electrocardiographic findings.

Electrocardiogram—During SA block auricular as well as ventricular complexes are absent. The length of the pause is usually an exact multiple of the length of the normal cardiac cycle (RR distance) as best determined with dividers. There may be an occasional dropping out of one beat at regular or irregular intervals. Occasionally two or more beats are omitted in succession. SA block must be differentiated from sinus arrhythmia which shows waxing and waning of the heart rate incident to respiration.

Treatment—In the absence of symptoms no treatment is required. If as a result of long pauses syncope occurs, it is advisable to administer drugs to diminish vagal tone. Ephedrine dihydrochloride, 15 to 30 mg. orally three times daily, or paredrine hydrobromide, 40 to 60 mg. three times a day by mouth, have proved effective. SA block can frequently be abolished by atropine sulfate or banthine, the latter to be given from 50 to 100 mg. every six or eight hours. It is important to remember that digitalis is perhaps the most common cause of SA block and should be discontinued or reduced if unpleasant symptoms occur. Less frequently SA block is the result of quinidine medication or acute infections involving the myocardium.

AURICULAR PREMATURE CONTRACTIONS

The impulse is premature and originating in an ectopic focus within the auricular musculature outside the SA or AV node. This premature contraction will travel in an abnormal and aberrant fashion throughout the auricles to the AV node and then in normal fashion through the ventricles. Some auricular premature contractions arrive at the AV node when it is still refractory and such prematurities will not be conducted to the ventricle. This is a blocked auricular premature contraction. The sinus node is usually activated (depolarized) by the prematurity and will therefore discharge the following beat before it is due; in other words the pause following the premature contraction is not fully compensatory. The cycle preceding plus the cycle following the premature beat is usually less than two normal cardiac cycles of a given heart.

Auricular premature contractions occur in normal and abnormal hearts. The most important causes are infectious diseases, overconsumption of nicotine, alcohol and caffeine. They are frequent in congestive heart failure, in myocardial infarction and in digitalis intoxication when every other beat may be a premature contraction (coupling). Anxiety states and nerve reflexes, particularly from the gastrointestinal tract are common causes of these prematurities.

Diagnosis—On auscultation the regular heart rhythm is suddenly interrupted by a premature beat followed by a longer pause. A blocked auricular premature contraction in which the ventricles do not contract can usually not be diagnosed without electrocardiographic tracing. If an auricular premature contraction appears early, before left ventricular filling, the beat may be heard with the stethoscope but cannot be felt at the wrist. If every second beat is a premature contraction, too weak to produce a pulse rate, the pulse rate may be exactly half the cardiac rate. Pulse deficit is a common finding in all types of prematurities. The patient who experiences frequent premature contractions may become "heart conscious." He will complain of a sensation of skipping or fluttering in his chest, palpitation, faintness and dizziness. Frequent premature contractions may initiate an attack of angina in some patients, and in others are the forerunner of more serious cardiac arrhythmias like paroxysmal auricular tachycardia, auricular flutter and auricular fibrillation.

Electrocardiogram—The characteristic findings are bizarre P waves, different in contour if compared with other P waves of the same lead and occurring early. The PR interval is longer than 0.12 seconds and usually longer than the PR interval of the normal sinus beats. The premature P wave is either followed by QRS complex similar to the QRS in the same lead or if the premature auricular contraction occurs so early that part of the ventricular musculature is still refractory and not fully recovered, the QRS complex following the premature P wave will be different in contour (aberrant ventricular conduction). Other times the premature P wave will not be followed by a QRS complex and this represents a blocked auricular premature contraction. Because most auricular premature contractions disturb the sinus mechanism by depolarizing the SA node, the pause following the premature beat is not fully compensatory.

Treatment—Removal of the underlying cause like coffee, alcohol, tobacco and digitalis frequently abolishes auricular premature contractions. Elimination of infection and correction of electrolyte imbalance is often necessary to correct this disturbance in cardiac rhythm. Quinidine, grains 3 three or four times daily, digitalization in congestive heart failure, administration of potassium salts 1 gram three times daily and phenobarbital in disturbed, anxious patients are all helpful therapeutic measures.

AURICULAR PAROXYSMAL TACHYCARDIA

The pacemaker for this abnormal rhythm is ectopic, located somewhere in the auricular wall and outside the normal conduction system. The heart suddenly becomes rapid. Auricular paroxysmal tachycardia actually consists of a series of auricular extrasystoles. The paroxysm may last minutes, hours or days. The cardiac rate is usually between 150 and 250 and the rhythm is quite regular. Characteristically, auricular paroxysmal tachycardia terminates as abruptly as it begins.

This disturbance of the cardiac rhythm is not uncommon and it occurs in normal and abnormal hearts and at any age.

The patient is usually aware of the sudden onset. There may be great apprehension, weakness, faintness and syncope. If the attack is severe and long lasting, angina-like pain may develop. In diseased hearts (mitral stenosis, coronary atherosclerosis) a paroxysm may quickly lead to congestive failure. Most patients with otherwise normal hearts recover quickly after the paroxysm is terminated. There is usually a history of previous attacks.

Diagnosis—The heart is regular and rapid with a rate between 150 and 250 during the paroxysm. The intensity of the heart sounds remains identical throughout. It has been stated previously that in sinus tachycardia vagus stimulation by carotid sinus pressure may temporarily slow the heart; this slowing does not occur in paroxysmal auricular tachycardia. Here, the rapid, regular heart rate will either not be affected at all, or the paroxysm will come abruptly to an end. This is an important point of differentiation between sinus tachycardia and paroxysmal auricular tachycardia.

Electrocardiogram—The P waves are abnormal in contour as in auricular extrasystoles because of their ectopic origin. If the cardiac rate is rather rapid, they are usually superimposed upon the T waves and then are difficult to recognize. The QRS complexes are usually normal in appearance, but, occasionally there is widening of the QRS interval or other signs of aberrant conduction if there is fatigue of the intraventricular conduction mechanism. In the most common type of auricular paroxysmal tachycardia every P wave is followed by a QRS complex. Occasionally the AV node is unable to conduct all auricular impulses and a 2:1 or 3.1 ventricular response will occur.

ST segment depression is a common electrocardiographic finding particularly in prolonged paroxysms of auricular tachycardia. This is perhaps the sign of myocardial fatigue and subendocardial ischemia.

The most salient diagnostic electrocardiographic features are the rapid, regular rates (usually above 180), the normal QRS complexes and P waves abnormal in contour or not recognizable. As result of the obscure auricular complexes the diagnosis of auricular paroxysmal tachycardia is at times difficult. Nodal tachycardia, auricular flutter, and with aberrant ventricular conduction, even ventricular tachycardia must be considered in the differential diagnosis. Esophageal leads or positions taken directly over the auricular musculature (V-1, CR-1) may produce large P waves and thereby assist in ascertaining the nature of the auricular mechanism.

Treatment—The cardinal treatment of an attack of paroxysmal auricular tachycardia consists of vagal stimulation. This may be accomplished by carotid sinus pressure. The patient is in the recumbent position, the carotid artery is located as high up in the neck as possible and is massaged against the vertebral column. Prolonged pressure against the carotid artery is to be avoided as it may lead to cerebral accidents by homolateral injury from arrested blood supply. It is advisable to try the right and left carotid sinus but never both at the same time. Syncope, convulsions and cardiac standstill have occurred following pressure in hypersensitive individuals, or if the maneuver was prolonged beyond period of cardic standstill.

Vagus stimulation may also be accomplished by occular pressure, by producing gagging or vomiting, by bending forward or holding the breath. The Valsalva maneuver consists of expiration with the glottis closed after deep inspiration, or forced inspiration with glottis closed after deep expiration.

Drug Therapy—Prostigmine is a safe and effective parasympathetic (vagal) stimulant. From 1.0 to 2 cc. of 1:2000 solution (0.5 to 1.0 mg.) is given subcutaneously or intramuscularly. Maximum effect is usually obtained in twenty minutes. Prostigmine will also enhance the effectiveness of carotid sinus pressure.

Procaine amide (Pronestyl) is a useful drug and should be employed if carotid pressure and Prostigmine fail to terminate the attack. The action of Pronestyl is similar to Quinidine. It is given orally in doses ranging from 250 mg. to 500 mg. three or four times daily. If given intramuscularly the same amount is administered and repeated in two or three hours if necessary.

Magnesium sulfate, 10 cc. of a 10 per cent solution given intravenously may stop an attack within a few minutes. Magnesium depresses the conduction system of the heart and should not be used in patients with conduction defects, advanced heart disease of any kind and in renal failure. This drug should not be employed except as a last resort.

Quinidine is one of the most important drugs in auricular paroxysmal tachycardia. It increases the refractory period of the auricular musculature and also increases the conduction time. Intravenous injection of quinidine sulfate, 0.5 gm. in 200 cc. of water, given as a slow drip over a period of five to ten minutes should be used only in the most obstinate and desperate cases. The method of choice is oral or intramuscular administration. Orally 6 grains of quinidine is given every two hours. Intramuscularly 6 grains of quinidine gluconate is administered every two hours till the attack is terminated. If repeated doses are necessary, electrocardiographic observation and control is desirable. If signs of toxicity (nausea, vomiting, diarrhea or skin rashes) occur, if the electrocardiogram reveals signs of intraventricular conduction disturbance, or if ectopic impulses appear, further quinidine therapy must be interrupted.

Acetyl-Be A-Methyl Choline (Mecholyl) is a powerful parasympathetic vagal stimulant. Twenty-five mg. given subcutaneously may end an attack in one or two minutes. Side reactions are common and occasionally serious. A syringe filled with 1.0 mg. of atropine should be ready for immediate intravenous use if untoward reactions occur. These consist of flushing of face and neck, hyperpnea, nausea, vomiting, sweating and serious fall in blood pressure. This drug should perhaps never be used in the older age group, in patients with bronchial asthma, angina pectoris and in the post-infarction stage.

Rapid digitalization has been a safe and extremely useful method of treatment in auricular paroxysmal tachycardia, particularly in protracted cases, after myocardial infarction and in patients with congestive failure. It sensitizes the carotid sinus and carotid sinus pressure frequently will terminate an attack after complete digitalization, although this maneuver was unsuccessful before digitalization. During the attack Cedilanid-D 0.8 mg. given intravenously or intramuscularly and repeated in four to six hours if necessary will frequently be effective. If digitalis preparations are given parenterally, one must be sure that the patient has not received digitalis within three weeks. During intravenous administration of a digitalis preparation electrocardiographic observation for the appearance of ventricular extrasystoles is the safest method. Such signs of myocardial irritability are indications for slowing down the rate of injection or discontinuing it altogether. If there is any doubt as to the differential diagnosis between auricular or ventricular paroxysmal tachycardia, digitalis must never be administered. For rapid oral digitalization, Digoxin 1.5 mg. initially and additional 0.5 mg. at six hour intervals constitutes good treatment if there is no urgency.

It is almost always possible to stop an attack with one or more of these treatments. In general it should be remembered that no drastic treatment for auricular paroxysmal tachycardia should be administered unless the condition is critical. Most paroxysms will respond to the less dangerous therapeutic maneuvers. Reassurance and sedation in the form of phenobarbital are always indicated to relieve anxiety and fear.

Prophylactic treatment between attacks consists of removing causative factors if known (infections, exertion, alcohol, tobacco, nervous tension, abdominal distention). Procaine amide, 0.25 to 0.5 gms. three or four times daily, or quinidine, grs. 3 four to five times daily, is often successful in preventing these attacks. Complete digitalization followed by a maintenance dose and continued for months has prevented attacks when other methods have failed.

AURICULAR FLUTTER

In auricular flutter the auricles beat perfectly regularly at a rate of 250 to 350 per minute. The focus for this mechanism is ectopic and the spread of the impulse through the auricles is aberrant. Because the conductivity of the AV node is usually limited to approximately 200 impulses per minute, the ventricles in auricular flutter respond to every second or third auricular impulse (2:1 or 3:1 auricular flutter). Untreated auricular flutter usually persists for days or weeks or longer, but it may appear in short paroxysms. It may rarely occur in an apparently healthy heart but is found more frequently in connection with some organic condition like rheumatic heart disease, arteriosclerosis, coronary artery disease, hyperthyroidism and myocardial infarction.

Diagnosis—The diagnosis of auricular flutter by auscultation is difficult. The heart is rapid, regular and forceful with an average ventricular rate of approximately 150 per minute (2:1 auricular flutter). Congestive failure may occur rapidly if atrial flutter is prolonged in damaged hearts. Weakness, dizziness, syncope and anginal-like pain may be associated with auricular flutter. In the differential diagnosis sinus tachycardia, paroxysmal auricular tachycardia and ventricular tachycardia must be considered. Final and definite diagnosis depends on the electrocardiogram.

Electrocardiogram—The P waves are replaced by flutter waves, so called F waves, giving the baseline a "saw toothed" appearance. The flutter waves occur regularly and at a rate of 250 to 300 per minute. The ventricular response is regular and usually one half the auricular rate (2:1 auricular flutter) or one third the auricular rate (3:1 auricular flutter). A 4:1 ventricular response does occur, particularly in treated cases. The flutter waves are best seen in Leads II and III and in precordial leads overlaying the auricles (V-1 and V-2). In some cases of auricular flutter the ventricular response is irregular.

Treatment—Complete and rapid digitalization is the best therapy, particularly if congestive heart failure is evident.

Because there has been much confusion as to the method of digitalis administration in the past, and to some extent in the present, I shall attempt to describe the important aspects of successful digitalization.

Intravenous or intramuscular administration should be reserved for those few cases (less than 5 per cent) unable to take the drug orally or when the situation is urgent and critical. It must never be given parenterally if the patient has received digitalis within three weeks, or if there is any question about previous digitalis medication. At least 95 per cent of all cases can be successfully and completely digitalized by mouth.

For extreme emergencies digitalization can be secured within one hour if Ouabain is given intravenously in doses of 0.5 to 1.0 mg. If the situation is less urgent give 0.25 to 0.5 mg. intravenously and repeat in four hours if necessary. The total therapeutic dose of Ouabain is 1.0 mg.

Equally effective but slightly less rapid digitalization may be obtained with Cedilanid-D (deslanoside) .08 mg. (4 cc.) given intravenously and repeated in full or half dosage in four hours if necessary. Oral maintenance dose, like Digitoxin 0.1 to 0.3 mg. per day, must follow intravenous digitalization.

Digitoxin has special advantages as it can be given intravenously, intramuscularly and orally. For rapid digitalization 0.6 mg. intravenously should be the initial dose; this is followed by 0.4 to 0.6 mg. in four to six hours. Full therapeutic dose in the first twenty-four hours is usually 1.2 mg. The same dosage may be followed with oral Digitoxin. The maintenance dose is most commonly 0.15 mg. daily by mouth.

There are many other preparations too numerous to mention for parenteral or oral digitalization. The physician should make an earnest effort to become well acquainted with at least one oral and one intravenous preparation if he is fully to meet his responsibility with this problem. Like the diabetic and his insulin, so does the cardiac and his digitalis present forever a challenge to the attending physician. The digitalizing dose as well as the maintenance dose is different for different people and may change for the same individual. While there is no acquirement of tolerance to digitalis, the patient's absorptive or excretive power may change as time goes on, leading to over or under digitalization.

About one half of the cases of auricular flutter will be converted to regular sinus mechanism after complete digitalization. In practically all cases digitalis will successfully slow the ventricular rate by depressing the AV conduction (4:1 instead of 2:1 ventricular response). About one half of the cases of auricular flutter will change to auricular fibrillation after digitalization. When this happens quinidine should be given to convert the fibrillation into regular sinus mechanism. Quinidine therapy will be described in more detail under auricular fibrillation. Suffice it to say here that quinidine should not be used in auricular flutter if there is a 2:1 AV coduction. The first action of quinidine is to slow the flutter waves and increase ventricular rate which may lead to a 1:1 conduction and a dangerous tachycardia.

To prevent paroxysms of auricular flutter known exciting factors like fatigue, exertion, tobacco, alcohol and coffee should be avoided. Quinidine sulfate grs. 3 three our four times daily is often effective in preventing recurrent attacks of auricular flutter. A daily maintenance dose of digitalis like Crystodigin .15 mg. after complete digitalization has been successful where quinidine has failed.

AURICULAR FIBRILLATION

Auricular fibrillation is perhaps the most common and most important disturbance in cardiac rhythm. The fibrillation waves (f waves) occur at a rate of 350 to 600 per minute. There is no coordinated auricular contraction and the fibrillating auricles have been compared to a "bag filled with worms." The ventricles usually respond in a rapid and grossly irregular fashion, beating 100 to 160 times per minute in untreated cases.

Auricular fibrillation may be chronic or paroxysmal. It occurs most commonly in rheumatic heart disease, particularly mitral stenosis, hypertensive cardiovascular disease, coronary artery disease and hyperthyroidism; it is less commonly seen in all types of infection and after surgical operations, particularly thoracic surgery. It rarely occurs in the absence of heart disease.

Auricular fibrillation may precipitate alarming symptoms in congestive failure and after myocardial infarction. If untreated, it may rapidly lead to pulmonary edema and death in patients with various types of heart disease.

Diagnosis—It is safe to say that most rapid and irregular hearts are fibrillating. The pulse is irregular in volume and rhythm, and there is a pulse deficit because many cardiac contractions will be too feeble and the left ventricle too empty to produce a radial pulse. If the fibrillating heart is slowed by digitalis the condition may be difficult to differentiate from frequent premature contractions, both rhythms are irregular and both may produce a pulse deficit. Digitalis will slow the ventricle in auricular fibrillation by slowing down the conduction through the AV node, but the auricles will continue to fibrillate at the same rapid rate. It is erroneous to say that now since the heart beats slower, auricular fibrillation is of a "lesser degree." The auricles either fibrillate or they stop fibrillating.

If after digitalization the heart becomes regular, one must think of two possibilities. The first is that fibrillation has stopped and a regular sinus mechanism has been established. The second is that a complete AV block has been produced by digitalis with the pacemaker in the AV node or Bundle of His—an idioventricular rhythm. In the latter case of course the auricles continue to fibrillate.

As mentioned, auricular fibrillation may rapidly lead to pulmonary edema, congestive heart failure and collapse. There may be severe palpitation, pounding, anxiety, cyanosis, dyspnea, orthopnea and syncope.

Electrocardiogram—Absence of P waves and irregularly spaced ventricular complexes are the pertinent electrocardiographic findings in auricular fibrillation. The baseline presents irregular undulations of varying amplitude (f waves) with a rate of about 350 to 660 per minute. These f waves may be coarse and easily identified or shallow and difficult to recognize. They are rarely as prominent as the flutter waves. The fibrillation waves are usually best seen in one extremity lead (usually Lead II) and in chest leads from the right precordium overlaying the auricles (V-1 and V-2).

If the ventricular response is rapid and as a result of this the conduction through the ventricle is aberrant, the ventricular complexes at times have the appearance of ventricular premature contractions. The differentiation between aberrant ventricular conduction and ventricular premature contraction becomes impossible unless there is fixed coupling. In the latter case the diagnosis of ventricular premature contraction can safely be made.

Treatment—If there are any signs of congestive failure, if the ventricular response is rapid and in all older patients with or without heart disease, full digitalization is the treatment of choice. One can almost always depend on digitalis to slow the ventricular rate by vagal effect on the AV node. It is this outstanding result in auricular fibrillation with rapid auricular response and accompanied by congestive heart failure that has earned for digitalis the reputation of "drug par excellence." The method of oral and intravenous digitalization has been covered under auricular flutter.

It is desirable to attempt to restore a normal rhythm in all cases of auricular fibrillation. Quinidine is the most effective drug to accomplish this. The danger of releasing an embolus from the fibrillating auricle as it is restored to a normal rhythm is not as great as if the auricle continues to fibrillate. Conversion to normal rhythm is frequently followed by increase in the functional capacity of the heart, by disappearance of heart failure and by decrease in heart size. Requirement for digitalis, diuretics and salt restriction is diminished or may be eliminated.

There is no contraindication to the combined use of quinidine and digitalis. In fact digitalis will often prevent quinidine from increasing the ventricular rate. Idiosyncracy to quinidine is rare and may be established by the administration of a test dose of 3 grains. Sensitivity will be evident by tinnitus, urticaria, vomiting, diarrhea and intraventricular block.

If there is no sensitivity to the drug, 3 grains of quinidine sulfate is given every two hours for five doses. If normal rhythm is not restored the patient is given the following day 6 grains every two hours for five doses. If higher doses (9 grains every two hours for five does) are to be used, the patient should be hospitalized and frequent electrocardiograms should be taken. If during this procedure a regular sinus rhythm has been established, the next dose of quinidine is omitted and the patient is put on a maintenance dose of quinidine, grs. 3 three to six times daily. This should be continued for several months.

AURICULO-VENTRICULAR (AV) NODAL RHYTHM

This term is applied when the impulse arises in the AV node. This may manifest itself as occasional AV nodal premature contractions, or as a more permanent shift of the cardiac pacemaker to the AV node—AV nodal rhythm, AV nodal tachycardia. In AV nodal rhythm the SA node is usually diseased and unable to function, while in AV nodal tachycardia the AV node is usually irritable and its high rhythmicity is capable of taking over as a pacemaker of the heart.

Diagnosis—Only if the heart is extremely slow (AV nodal rhythm), extremely fast (AV nodal tachycardia), or irregular (AV nodal premature contractions) are symptoms produced in this disorder. The final diagnosis always depends on the electrocardiogram.

Electrocardiogram—If the pacemaker is located in the AV node, producing either an occasional premature contraction or a well established nodal rhythm, the P waves will be abnormal as compared to the sinus P waves; because there is usually a retrograde conduction through the auricle, the P waves will be inverted in Lead II, upright in AVR and inverted in AVF. This abnormal P wave will precede the QRS complex if the pacemaker is situated in the upper AV node, but will follow it if the pacemaker is situated in the lower AV node. The PR or RP interval is usually 0.12 seconds or less but may be prolonged if AV block exists.

Treatment—No specific treatment is available for this condition. Therapy should be directed toward the underlying cause (digitalis, coronary artery disease).

VENTRICULAR PREMATURE CONTRACTIONS

These prematurities may occur in normal hearts but are more common in abnormal hearts. Generally they are considered more serious than auricular prematurities. Coronary artery disease, coronary occlusion, toxic effect of digitalis, infections, and overconsumption of alcohol, nicotine and caffeine are common causes of ventricular premature contractions.

Diagnosis—Frequent ventricular extrasystoles may be confused with auricular fibrillation. Dropped beats in the presence of AV block have to be considered in the differential diagnosis.

Marked sinus arrhythmia can usually be differentiated by its relation to respiration. Premature contractions originating in other areas of the heart (as auricle, AV node) can only be diagnosed by the electrocardiogram.

Electrocardiogram—The ventricular complexes representing ventricular premature contractions are usually slurred, widened and of high voltage with T waves usually opposite in direction. These abnormal complexes must be early and not preceded by P waves. Ventricular premature contractions may occur occasionally or frequently (bigeminy, trigeminy). They may arise from a single focus or from different foci.

Treatment—Therapy is directed at the cause: rheumatic heart disease, hypertensive cardiovascular disease, coronary sclerosis, over-digitalization. If the patient develops frequent ventricular premature contractions while being digitalized, this drug should be discontinued or the dose reduced. Potassium chloride 3 to 6 gm. is a helpful preparation to overcome toxic effects of digitalis. If ventricular premature contractions persist and cause discomfort, a sedative should be prescribed to assure sleep. Administration of quinidine, grs. 3 three times a day, and increasing often depresses the irritability of the myocardium.

Procaine amide (Pronestyl) 250 mg. to 500 mg. every four hours is frequently effective in controlling ventricular premature contractions.

VENTRICULAR TACHYCARDIA

This disturbance in the heart beat is usually associated with cardiac pathology, most commonly coronary artery disease, myocardial infarction, hypertension and occasionally digitalis intoxication. The mechanism of ventricular tachycardia consists of a rapid succession of ventricular premature contractions. It may last for minutes, hours or days.

Diagnosis—The ventricular rate is usually from 130 to 180 per minute and the rhythm is slightly irregular. Ventricular tachycardia is not affected by carotid sinus pressure. The intensity of the first heart sound is variable.

Electrocardiogram—The ventricular complexes have the appearance of ventricular premature contractions; they are notched and widened. Auricular activity is slower and independent, but the P waves are often difficult to recognize. Supraventricular tachycardia with widened QRS complexes, as the result of aberrant conduction, is difficult to defferentiate from ventricular tachycardia. The ventricular rate is most commonly from 130 to 180 per minute. Espohageal leads are sometimes necessary for a definite diagnosis.

Treatment—Unless the diagnosis of ventricular tachycardia can be definitely established, digitalis should not be administered since it may precipitate ventricular fibrillation and death.

Quinidine and Pronestyl are the drugs of choice in the treatment of ventricular tachycardia.

Quinidine is given orally 6 grains every two hours. If the situation is urgent, it may be used intramuscularly 9.0 grains as quinidine gluconate every hour for six doses if necessary.

Intravenous application may be attended by serious side reactions; it must always be administered slowly and under electrocardiographic observation. Quinidine gluconate, 1.0 gm., is diluted in 200 cc. of saline solution and given as a slow drip over a period of ten minutes. Therapy must be stopped if signs of toxicity (nausea, vomiting, rash) develop, or if the electrocardiogram reveals signs of interventricular conduction disturbance, or if multiple ectopic foci appear.

Pronestyl is quite effective in the treatment of ventricular tachycardia. Its chemical action upon the myocardium is similar to quinidine.

The oral dose is 0.5 to 1.0 gm. every two hours. If the situation is urgent, Pronestyl may be given intramuscularly in the same dosage, 0.5 to 1.0 gm., and repeated every two hours until the tachycardia is controlled.

Pronestyl may be given intravenously if the situation is critical and the patient is in shock. One hundred mg. are given every three minutes till sinus rhythm is restored or a total of 1 gram has been administered. If toxic reactions are noted, administration must be stopped. Intravenous Pronestyl should only be attempted under electrocardiographic observation.

Prevention of attacks of ventricular tachycardia should be tried if these paroxysms occur with frequency. Quinidine, grs. 3, three or four times daily, or Pronestyl, 250 to 500 mg., three or four times daily, are most effective.

432 Professional Bldg.

PAMPHLET ON FIRST AID IN POISONINGS

A new pamphlet outlining first aid measures in accidental poisoning has been published by the American Medical Association's Committee on Toxicology as a guide to the public.

The booklet emphasizes speed in calling a physician and starting first aid measures. When a poisoning occurs, it recommends that one person call the doctor while the other begins treatment. If only one person is available to give treatment, he should call a physician first if the poison is a corrosive or petroleum product.

The pamphlet describes the different types of poisons and when vomiting should be induced. It also describes inhaled poisons, skin contamination, and chemical burns—and what to do in each case until the doctor arrives.

The pamphlets may be obtained by writing to the A.M.A. Committee on Toxicology, 535 N. Dearborn Street, Chicago 10, Ill.

Case Report

Encephalitis

As a Complication of the Influenza

G. H. LAWRENCE, M.D., AND R. A. JONES, M.D., *St. Louis*

IT IS FELT that the following case report will illustrate the manner in which a viral encephalitis can be a complication of the present influenza epidemic.

A 40 year old married attorney was first seen October 29, 1957, after an emergency admission to Missouri Baptist Hospital in St. Louis. The history, as obtained from his wife, was to the effect that he had had a rather typical "flu" for about a week prior to admission. The chief characteristics of this week of illness were those of fever, general malaise, muscle aching, anorexia and periods of profuse perspiration as the illness first began. There had also been a cough and some nasal congestion. He was thought to be making a good recovery and had been afebrile on the day before his admission to the hospital. As an indication of his apparent feeling of well being at that stage, he had taken a short walk the evening before, had watched television for a time and had retired in good spirits and had planned to go back to work the following morning. About four hours after going to bed, around 2:30 o'clock in the morning, the patient was noted by his wife to be restless and thrashing about in bed. She was alarmed to discover that he was incoherent and certainly unaware of his surroundings. A physician gave parenteral sedation and the patient was quiet for some three hours but again awakened his wife around 6:00 o'clock in the morning as he sat on the edge of his bed, stared about in an incomprehending manner and was unable to talk to her. Such sounds as he did utter were unintelligible mutterings.

A review of the past medical history, personal history and family history was noncontributory and he apparently had enjoyed good health throughout much of his life. His wife made the statement, "He has never been sick a day in his life."

Physical examination revealed a semi-comatose, extremely restless, hyperactive man who reacted quite violently even to light stimuli. He kept his eyes closed and could not cooperate in any of the examination procedures. There was an occasional small emesis of what appeared to be gastric contents. Blood pressure was 130/85. The rectal temperature on admission was 100 F. Pulse was 96 and the respirations were 22. The consulting internist felt some rales were present in the left base.

Neurologic examination revealed a markedly clouded sensorium. There were no lateralizing or localizing findings. There was only a slight suggestion of meningeal irritation in that the Kernig's sign became positive at about 110 degrees. On the day of admission no nuchal rigidity was felt to be present. There was a suggestion of bilateral toe signs, about which it was difficult to be certain because of his hyper-reactivity. Other neurologic examination was otherwise normal.

The hematocrit was 43 per cent; hemoglobin was 13.7 grams, or 91 per cent; white blood count was 7,000; the differential count revealed 81 segments, 18 lymphocytes and 1 basophyle. Routine urinalysis revealed a trace of sugar and 2+ acetone, and otherwise was normal.

Lumbar puncture was performed with some difficulty and revealed a normal initial pressure of 140 mm. of water of clear, colorless fluid. Examination of the spinal fluid revealed 171 cells, 76 per cent of which were lymphocytes; 20 per cent neutrophils and 4 per cent monocytes. The spinal fluid protein was markedly elevated at 84 mgs. per cent. The Pandy test was positive. Examination for chloride and sugars revealed normal values.

Complement fixation tests are being done but are not completed at this time. Forty-eight hour cultures of blood and spinal fluid have been normal.

The patient's course in the hospital was essentially that of no change the first four days. On the fifth day he had definite awareness of his surroundings and casual conversation could be conducted with him in a rational manner. By the seventh day the sensorium was quite clear and no neurologic findings of any sort were to be found on examination. Temperature in the hospital ranged from 100 to 102 F. per rectum and it may be noted that at the end of the fourth day the temperature was normal and it was shortly after this that clinical improvement occurred.

Treatment generally consisted of maintaining fluid balance, sedation with both intramuscular sodium amytal and thorazine, plus the use of Achromycin on an empirical basis. At no time did this patient exhibit signs of obstruction of his airway and no special measures were necessary in this regard.

COMMENT

One case, of course, is only anecdotal and need not necessarily show a pattern, but since then our attention has been drawn to other cases of encephalitis in which the feature of explosive onset of complete disorientation and confusion over a period of only a few hours has occurred after the systemic reaction has disappeared, the patient has become afebrile, and everyone has thought that recovery had taken place. There would not appear to be any features of the systemic reaction to indicate that a complicating encephalitis is impending. In the case presented there has not yet been time to establish proof of the presence of the Asiatic strain

(Continued on page 1167)

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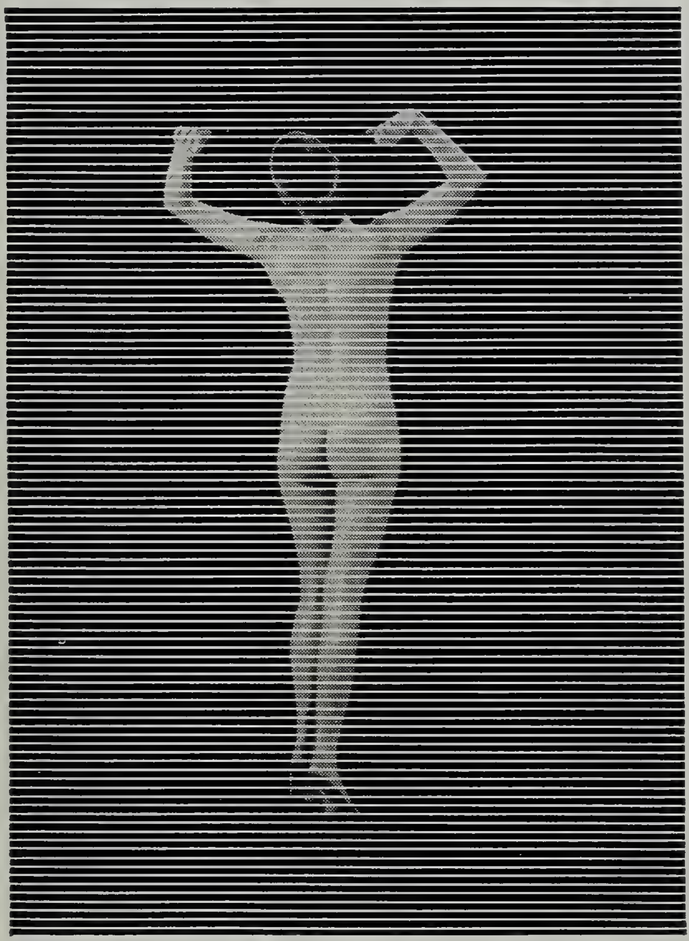

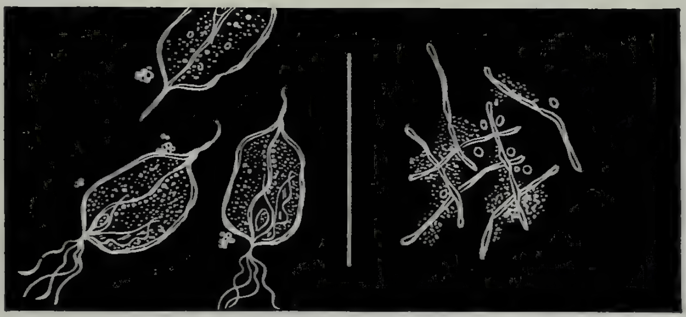

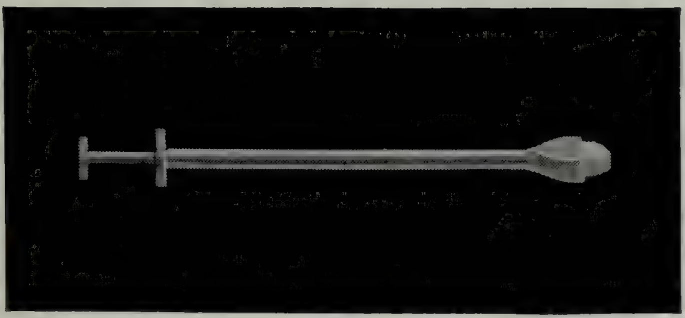

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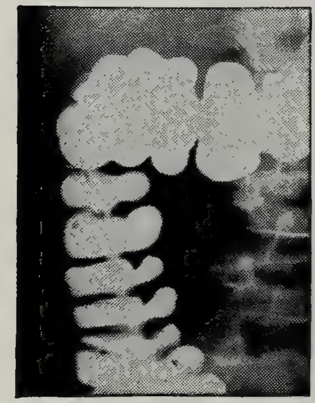

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Special Articles

Proposed "Vendor" Medical Care Program for the Indigent

WALTER S. SEWELL, M.D., *Springfield*

LEGISLATION of the deepest significance to Missouri doctors—and people they serve—legislation that would bring about a basic new development in the furnishing of medical care to people receiving public assistance from the state—may be introduced in the General Assembly at a special session next year. If not then, it will be introduced in the next regular session starting January, 1959.

This measure would enable the state to get dollar-for-dollar matching funds, authorized by new Federal legislation, for direct payment to "vendors" of medical care furnished four classes of people receiving public assistance from the state.

Three brief definitions may help explain this complicated program. First: "Medical care" as defined in the Federal law covers the services of physicians, hospitals, nursing homes, nurses, dentists and druggists. Second: "Vendor" is the term used in the Federal act to designate physicians, hospitals, nursing homes, nurses, dentists and druggists providing those services. Third: The four classes of persons eligible for the benefits of the act are those receiving Federal-state public assistance payments who are (1) past 65 years of age, or (2) blind, or (3) totally and permanently disabled, or (4) dependent children or guardians of dependent children.

If the General Assembly should pass appropriate legislation, the payments for medical care for welfare recipients as defined would be made direct to the "vendors" of that care by the State Welfare Division.

Those payments would be in addition to the subsistence payments the division is already making to the welfare recipients themselves. The present subsistence payments the State Welfare Division is now making direct to the welfare recipients go up to a maximum of $60 per month per person—including any provision for the recepient's payment of his own medical care costs.

The new direct—and additional—"vendor" payments would be disbursed from a pooled fund made up of matching Federal and state contributions. From this pool of funds, payments would be made to all or some of the "vendors" of medical care as previously defined for services provided to welfare recipients qualified to get them.

It has been estimated that, if full matching appropriations were made by the state, the Missouri program would cover about 225,000 persons and provide an additional $14,000,000 a year for their medical care. It is not expected that, initially, an attempt will be made to furnish this full amount.

It is well to point out here that the Federal provisions for administration of the new program have been left flexible for each individual state and there will probably be wide variations in the ways states electing to participate will go about it. It would be up to each participating state to decide, for example, how much money to appropriate for the program, whether all four categories of public assistance recipients would be included—or just one or two or three—whether to provide for payment to all types of "vendors"—or just one or two or three—and so on.

Now, after that long and yet necessary explanation, what are the implications of such a program for Missouri?

First of all, let me say that there will be in all probability very strong support from many sources for such a program, or part of it. The American Public Health Association, for example, recently asserted in a report: "The state of Missouri, in comparison with a number of other states in this part of the country, has lagged behind seriously in providing for the medical needs of public assistance recipients." The American Public Health Association recommended that the state appropriate matching funds to make it possible to take full advantage of the potential $7,000,000 Federal matching funds annually. It further recommended that eight "medical care" priorities be established for the expenditure of the funds. It suggested that first

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Excerpted from a talk on "Your State Medical Association and Its Program" before the Jasper County Medical Society, Carthage, November 12, 1957.

Encephalitis—Continued

of virus, though this would seem a strong presumptive diagnosis as the causative agent of this encephalitis. It is further suggested that if an epidemic does reach serious proportions, there will be a significant number of people who will present sudden, dramatic and alarming mental symptoms after apparent recovery from influenza.

607 N. Grand Ave.

in the order of priority should be "Physician's services and ancillary medical services in nursing homes." The second of the eight suggested priorities was "Physician's services to the bedridden patient in his own home." The other suggested priorities were: Third—drugs, braces, appliances, prosthetic devices recommended by physicians; fourth—visiting nurse service; fifth—nursing home care; sixth—hospital care (public and voluntary); seventh—outpatient care, including service in rehabilitation centers, and eighth—"other."

I am sure there will be many different ideas on how the proposed "vendor" program should be put into effect in Missouri, if it is put into effect—and for whom the money should be spent—and to whom the money should be paid—and how much money should be paid.

If, for example, the Legislature should include physicians' services for payment in the program, it seems inevitable that there would be a fee schedule. Who would establish it? That would, of course, depend on the provisions of the Missouri law and regulations. As an illustration, I am informed that in our neighboring state of Illinois, doctors' fees under that state's "vendor" program are fixed by the state Public Aid Commission in consultation with an unofficial medical advisory committee named by the state medical association.

Dr. Thomas H. Alphin, director of the American Medical Association's Washington office, said recently that Federal officials expect about 40 states to begin participating in the new program of more Federal money for medical care of the indigent. There is, however, little uniformity at this time in their various approaches to the program, he said.

Well, what are the implications for the medical profession? In what are sometimes referred to as "the good old days," the local community was expected to feed, clothe and house its needy, while the doctors and hospitals undertook to give them care for little or nothing. What is the situation today? Dr. Alphin of the A.M.A. comments, "At present, public assistance money intended for medical care—for physicians, hospitals, nurses, dentists, druggists—probably totals well over half a billion dollars a year, when state, Federal and local contributions are considered. This phenomenal medical-social-economic-political development is having and will have repercussions on medical practice, for good or bad."

Yes, that tremendous change that Dr. Alpin talks about has great significance for the practice of medicine and for the health and well-being of the people of our country. The "good old days" may have been better for the individual doctor to practice his art and science of ministering to the ills of his patients. But is too much nostalgia good for any person, or any group of persons? Can we go back? If we could, would that be better for a big segment of this nation's people?

For the greatest benefit of our profession and the people we serve, shouldn't we act in such a way that we will not be—as the theater would say—"typed," in the role of just "aginners"? Should we offer a positive program, so that we can try to guide, to lead, to help shape destiny—including our own?

Well, here's the present situation on how we stand in Missouri. Early this year, the Council of the Missouri State Medical Association decided to take the following position toward a proposed "vendor" program for Missouri—that we were neither for nor against it, but that we believed creation of a medical advisory committee, to advise the State Welfare Division on all medical care aspects, should be included in any proposed legislation. This was also the position taken by the Reference Committee that considered the matter at the annual session last April of the House of Delegates of the Missouri State Medical Association.

The House of Delegates, after brief consideration, and without referring the issue back to a reference committee—rejected this carefully considered recommendation and voted to take the position that the medical profession was flatly opposed to the State of Missouri's taking part in any way in the "vendor" medical care program for its indigent people.

As regards medicine, this puts us squarely in the position of saying that the medical profession does not want to be paid Federal-state funds that might be made available for the medical care and treatment of the indigent aged, blind, disabled and dependent children of this state; we have taken the position that the doctors of medicine of Missouri will continue to provide such services without charge to needy patients.

I wish to stress that the House of Delegates' position as adopted goes much farther than merely stating the viewpoint of the medical profession on its own relationship to the proposed new public assistance program of the state. We have also, in this position, declared that we are absolutely opposed to the State of Missouri's providing any matching Federal-state funds to pay for "vendor medical care" services furnished by hospitals, nursing homes, nurses, dentists and druggists to the indigent aged, blind, disabled and dependent children of our state.

The Council of the Missouri State Medical Association, which as I said earlier acts as the executive committee of the association, wants to be certain—in advance of the introduction of legislation in the General Assembly, that the medical profession is fully informed of the provisions and implications of the legislation. The Council wants to give every member of the Missouri State Medical Association the opportunity to say what course he thinks the Association should follow concerning the legislation.

We are planning, therefore, to send to every member information about the legislation and a

The Third Party in Medicine

The role of the federal government as a third party in medicine should be to preserve the relationship of confidence between patient and physician, according to Oren Harris, Congressman of Arkansas, who is chairman of the House Interstate and Foreign Commerce Committee.

"If this personal relationship of confidence is to be preserved," Congressman Harris continued, "and I, for one, am determined that it shall be—it follows that the role of the Federal Government as a third party in that relationship must be carefully circumscribed if it is to further and not harm that relationship."

Congressman Harris explained how the House Interstate and Foreign Commerce Committee became concerned with health problems, in his speech before the Conference of Presidents and Other Officers of State Medical Associations at its thirteenth annual meeting.

"Since Colonial days, our country has depended, as you may well know, on merchant vessels to bring goods from foreign lands and to export," he said. Seamen who became ill became a problem for the health facilities and courts in the large port cities. When Congress met in 1789, a committee was appointed to prepare a bill to provide hospitals for sick and disabled seamen.

"The Marine Hospital Service Act approved by President Adams on July 16, 1798, authorized the President to take such action," according to Harris. In continuing, Harris said, "I told you it was 1789, but it was in the fifth Congress when the Hospital Service Act itself actually passed. It took, therefore, nine years. That isn't so different from today . . . because, after all, any major policy legislation usually takes a number of sessions."

The congressman pointed out that the Marine Hospital Service formed the basis of the United States Public Health Service. This explains how the field of health became the responsibility of the Committee on Interstate and Foreign Commerce.

This committee was established in 1795 and is the oldest standing legislative committee with continuous existence in the Congress. The committee has 33 members. However at the beginning of this year, an 11-member subcommittee to study health problems was appointed with John Bell Williams, Congressman from Mississippi, as Chairman.

Harris pointed out that "from the very inception of the Republic the Congress, in case it found that such action was justified . . . has accepted the fact that a third party might be required in special situations to provide needed medical service."

The congressman discussed other types of third party activity relating to medicine, pointing out that any third party, entering into a two-party relationship, always creates a problem.

"Surely (hospitals) must be considered a third party when it becomes a matter between the patient and the physician relationship." And he posed the question: "If we consider hospitals third parties, can we consider the Federal Government a third party once removed, because the Federal Government through the hospital construction program has given impetus and support to the construction of the new hospital facilities by state and local government and by private and non-private organizations?"

Harris pointed out that the purpose of his speech was to discuss third parties which "greatly benefit physician-patient relationship." On the other hand, he commented that "there have been instances in which some hospitals have been criticized for disturbing established physician-patient relationships . . . directed against the practice generally followed by hospitals of being selective about admitting members of the medical profession to their staffs. This selectivity," he said, "I do not criticize . . . but am merely stating the facts, definitely affects, in my opinion, the relationship between some physicians and the patients."

Harris' considered opinion was that the medical profession did not want to—and actually could not—exist without hospitals. "But," he said, "it does not mean that each and every act of these third parties invariably is beneficial to the relationship

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Extracted from a speech by Oren Harris, Congressman of Arkansas, Chairman of the House Interstate and Foreign Commerce Committee, before the thirteenth annual meeting of the Conference of Presidents and Other Officers of State Medical Associations, New York City, June 2, 1957.

Vendor Program—Continued

questionnaire to enable him to say what he thinks our position should be on the legislation.

In the past we have sent out questionnaire-polls to determine our profession's thinking concerning such things as single licensure legislation, social security for doctors and the Medicare program. The response in each case has been very great and has enabled the association to translate the medical profession's informed and considered thinking into a positive course of action.

We believe that your thoughtful response to the forthcoming poll on the proposed "vendor" medical care legislation will guide us in the same manner.

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which exists between a given physician and his patient."

Harris also mentioned the private insurance carriers and prepayment organizations as "third parties which importantly participate in the physician-patient relationship." In commenting on the different forms which these plans may take, he said, "As I understand it, there are many different points of view as to whether a given plan or method is beneficial or detrimental to the traditional physician-patient relationship."

In further discussion of third parties, Harris said there were other organizations not normally thought of in this way—but nevertheless factors in influencing the traditional patient-physician relations.

First, he mentioned the fact that some pharmaceutical firms advertised to the general public in the effort to create a demand for certain drugs—some of which may be sold by prescription only. The "third party" influence here is obvious. He said: "It is my understanding that the problems have been the subject of study by a special committee established by the American Medical Association, and if these practices continue and increase in frequency, our Committee, too, will undoubtedly want to study how these practices affect the public welfare, or should I say, public tranquility?"

He further mentioned that various foundations and voluntary organizations are dedicated to teaching the public about specific diseases and "to stimulate their prevention or cure. In some instances, substantial differences of opinion have arisen on the part of medical experts as to whether a vaccine or a pharmaceutical or biological product is safe and efficacious or whether it should or should not be given to patients."

In returning to the role of the Federal Government in medicine, Harris said, "Modern medicine appears to stress more and more the interrelationship of all human functions and the need for dealing with the whole person. . . . This concept of medicine requires more than ever a peculiar relationship of confidence between patient and physician, and any attempt to make this relationship of confidence over into a service which can be routinized or standardized and which may be purchased at a going price in the market place can only result in destroying that relationship."

As a basis for judging the need for Federal participation in medicine, Harris suggested, first: there must be a clear need for such participation, and no other way to meet the need. Second: after such a need has been established, the Federal Government should become, wherever possible, an indirect third party. He mentioned the pro-

(Continued on page 1204)

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NEW DOSAGE. The recommended adult dose is 1 Gm. (2 tablets or 4 teaspoonfuls of syrup) the first day, followed by 0.5 Gm. (1 tablet or 2 teaspoonfuls of syrup) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours. Dosage in children, according to weight; i.e., a 40 lb. child should receive ¼ of the adult dosage. It is recommended that these dosages not be exceeded.

TABLETS: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

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1. Nichols, R. L. and Finland, M.: *J. Clin. Med.* 49:410, 1957.

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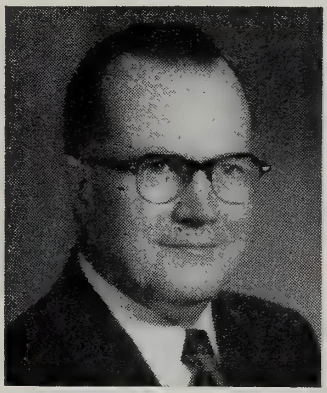
President's Page

Now is the time for us to urge our patients to take their polio shots. At the present time we have plenty of serum, whereas next spring and summer there may be a run on it and not enough to go around.

Now also is the ideal time because immunity will have been achieved before the danger months roll around next summer.

All of us have patients that have taken just one, or perhaps two, inoculations. They should be encouraged to complete the series to obtain full protection.



Even though the total number of unprotected persons is decreasing, their individual hazard remains basically the same. The public seems to have been lulled into complacency, and many act as if the danger was past merely because of the discovery of Salk vaccine.

It is up to the entire medical profession to see that poliomyelitis takes its place as a preventable disease, along with whooping cough and diphtheria—a disease to be controlled by routine immunizations during infancy and childhood.

There still are about 40 million Americans under 40 years of age who have not had their first shot. In addition, another 40 million have not received all three shots. This certainly presents a sizeable target to our profession, doesn't it?

In our own state, surveys by the Division of Health show that many preschool children and teenagers, from 15 through 19, have not been inoculated as yet. This is not to mention the many, many adults—including young parents—who need to be inoculated.

I hope that each physician throughout the state will do all he can to alleviate the situation. Many county societies, undoubtedly, will wish to hold their own clinics as has been done in the past.

At the same time the American Medical Association is spearheading a national campaign of its own. Many civic and voluntary groups across the nation are participating in that program, such as the nation's admen.

Through the Advertising Council, Inc., they are doing all they can to bring the message to the many millions of Americans who needlessly expose themselves to the crippling, and sometimes deadly, disease.

Perhaps, as the smoke clears away from the Asian Flu vaccine hassle, we can get the public to focus on the permanent threat of poliomyelitis.

Walter S Sewell M.D.

EDITORIALS

New Council Now Screening Foreign Medical Candidates

The problem of how to evaluate the background of a foreign-trained medical school graduate appears to be nearing a solution. This problem has plagued this country since America became the world leader in the medical field.

The Educational Council for Foreign Medical Graduates has opened its door for business in Evanston, Ill. It will carry out a detailed and comprehensive program for evaluating the foreign graduates.

This will be no small job considering there are more than 6,000 such physicians in the United States on temporary visas serving as interns or residents. All foreign-trained physicians here on temporary visas are supposed to return to their native countries on completion of their internship or residency training.

In addition there are another 1,000 foreign-trained physicians who enter each year as immigrants or as American citizens after completing their education abroad.

Three years ago it was decided that some form of evaluation service should be established within an independent agency. The council, first announced last February, is administered by a 10-member board of trustees.

Two representatives come from each of the four sponsoring agencies and two persons represent the public at large, one named by the United States Department of Defense and the other by the Department of Health, Education and Welfare. The four sponsoring agencies are the American Medical Association, the Association of American Medical Colleges, the American Hospital Association, and the Federation of State Medical Boards of the United States. For the next two years, the council will be supported by the four sponsoring agencies, the Kellogg Foundation and the Rockefeller Foundation.

The president of the board, Dr. J. Murray Kinsman, dean of the University of Louisville School of Medicine, said there will be a 3-way screening process of foreign graduates:

1. The council will certify that a student's educational credentials have been checked and found meeting minimal standards—18 years of formal education, including at least four years in a bona fide medical school, but excluding hospital training.
2. The council will certify that the command of English has been tested and found adequate for assuming an internship in an American Hospital.
3. The council will certify that the general knowlege of medicine, as evidenced by passing of the American Medical Qualification Examination, is adequate for assuming an internship in an American hospital.

The council will not serve as a placement agency either for interns or residents, nor will it attempt to evaluate the teaching program or inspect or approve any foreign medical school, it was emphasized.

Neither will it act as an intercessor for foreign medical graduates having problems under discussion by state boards of medical licensure or specialty boards.

It was said that tentative plans call for the first examination for foreign medical graduates already in this country to be held either next February or March. The second such examination for foreign graduates both here and abroad is scheduled for either next July or August.

The screening process was initiated to help maintain the present high medical standards in the U. S., Dr. Kinsman added.

"At the same time," he concluded, "the council hopes to encourage the well-trained foreign physician to take advantage of the opportunities to further his education in this country."

Cigarettes, Ad Infinitum

The following editorial appeared in the October issue of *The Bulletin* of the Greene County Medical Society and is reprinted by permission.

"Our conclusion, to date, regarding the cigarette-lung cancer issue is that if the experts don't hush up pretty soon the world will never get the mess untangled.

"We haven't seen such confusion since Gallup and Dewey collapsed together in 1948.

"Only this morning we read that one scientist stated 'A person who does not smoke stands only one chance in 275 of developing lung cancer. A person who smokes two packs of cigarettes daily stands one chance in 10 of developing lung cancer.' There is nothing wishy-washy about that. Even the most hardened fag addict would find cause for pause.

"We found the next expert's opinion confusing, however, 'Obviously,' he said, 'there is no simple cause and effect mechanism resulting from smoking.'

"This might be comforting except for the report of the British Medical Research Council's statement that the relationship between cigarette smoking and lung cancer is 'one of direct cause and effect.'

"Next, however, was the statement by another 'per capita comsumption of tobacco is much less

(Continued on page 1186)

BOARDS, FELLOWSHIPS AND CONTESTS

BOARD EXAMINATION

Part I examinations of the American Board of Obstetrics and Gynecology are to be held at 2 o'clock January 2 in various parts of the United States and Canada.

Candidates notified of their eligibility to take the test must submit their case abstracts within 30 days of notification of eligibility.

For information write the board, 2105 Adelbert Road, Cleveland 6, Ohio.

FELLOWSHIPS

The American Foundation for Allergic Diseases is offering post-doctoral fellowships in research and clinical allergy for two years each. December 15 is the application deadline.

Stipend: first year, $4,500; second year, $4,750; laboratory and travel expenses for 2-year period, $750.

Requirements: Candidates must be graduates of approved medical schools and must have completed one or two years of the graduate training required as a preliminary to certification by the Boards of Internal Medicine or Pediatrics. They are to divide their time between research and clinical training, and in the second year 10 or 15 per cent of a candidate's time might be devoted to teaching.

Mail applications to Dr. Herman N. Eisen, Professor of Medicine (Dermatology), Washington University School of Medicine, 600 South Kingshighway, St. Louis 10.

CONTESTS

The American Goiter Association offers the Van Meter prize award of $300 and two honorable mentions for the best essays on original work on problems related to the thyroid gland. Essays should be submitted by February 1.

They may cover either clinical or research investigations, but should not exceed 3,000 words in length. Duplicate typewritten copies, double spaced, should be sent to the secretary, Dr. John C. McClintock, 149½ Washington Avenue, Albany 10, New York. The award will be made in June.

The International Academy of Proctology will award $100 and a certificate of merit to the best unpublished contribution on proctology or allied subjects. Contest deadline is February 1.

All entries are limited to 5,000 words and must be submitted in five copies. The award will be made April 11. Send entries to Dr. Alfred J. Cantor, 147-51 Sanford Avenue, Flushing, New York.

ASIAN FLU STILL WITH US

The United States Public Health Service reports the Asian Flu is continuing its course virtually unchanged from what was predicted. While more schools are being infected, some declines in flu absences are noted.

Continued increases in industrial absences also have been reported, but on the whole they are not above what was expected.

Two U. S. agencies, the Federal Trade Commission and the Food and Drug Administration, have jointly warned drug manufacturers against using "false or misleading claims that their drug products are effective in preventing or treating Asian influenza."

"Some drug preparations will relieve some of the discomforts of influenza, and these have a proper place in treating the patient. But aside from the vaccine there are no drugs available to prevent this disease," the Food and Drug Administration said.

However, the Russians reported a quick-acting, cheap "cure" for the Asian flu.

Dr. A. K. Shubladze, a woman doctor with the Ivanov Institute of Virology in Moscow, told a Washington, D. C., audience it was a powder made from horse serum and inhaled like snuff.

She added that their drugstores have ample stocks of the powder to take care of the needs of Russia's 205 million citizens.

Sticking with the vaccine, this nation made plans to double its potency.

Surgeon General Leroy Burney of the USPHS has asked drug vaccine manufacturers to increase the monovalent vaccine having an antigenic potency of 200 CCA units to 400 units per ml. Burney acted on the recommendation of a special advisory committee. The committee's report said:

". . . when 400 CCA vaccine is administered, antibodies develop in more people and to a higher level. On the basis of all previous information, this should induce more effective immunity more promptly. Indeed, the antibody levels in such persons are comparable to those in patients who have recovered from Asian influenza."

PAMPHLET DESCRIBES EYE MEN

A pamphlet describing the differences between ophthalmologists, opticians and optometrists has been prepared by the National Medical Foundation for Eye Care. Physicians may obtain free copies for distribution to patients.

This seems to be one area in which most of the public appears to be completely confused as to the training and functions of the practitioners. All they know is that the man normally calls himself a doctor.

The foundation was created less than a year ago by American ophthalmology to create a better public understanding of the professional and scientific standards of good eye care. Nearly 200,000 copies of the phamphlet already have been ordered by physicians. For free copies write to:

National Medical Foundation for Eye Care
250 West 75th Street
New York 19, New York

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Musings of the Field Secretary

In spite of Sputnik and foreign and domestic flu, 153 doctors attended the Ninth Annual Assembly of the Missouri Academy of General Practice at the Hotel Governor in Jefferson City on October 30 and 31. They came from all corners of the state, and judging from the comments they must have enjoyed the meeting.

Most of the scientific program was arranged in 15-minute talks. The program committee had been somewhat skeptical about being able to run off such a program on time. Their fears were not realized as the presiding doctors of each session "rang the gong" on each speaker at the end of his 15-minute period. I overheard two or three speakers say that it was much more difficult to prepare a 15-minute talk than one for 30 minutes or longer. There was plenty of evidence throughout the program that all of the speakers had spent considerable time in preparing their presentations. The panels at the end of each symposium were very effective in tying together the individual talks.

It was quite interesting to note that the final session on Thursday afternoon, from 1:00 to 3:45 p.m., had as large an attendance as any of the other sessions. One hundred and twenty-five doctors were present at this session to hear the Heart Symposium given by Drs. James G. Janney, Jr., St. Louis, Charles P. Bailey, Philadelphia, and William A. Sodeman, Philadelphia. In so many cases it seems that the last session of most meetings find too many people taking off for home leaving just a handful to listen to the closing part of the program. It was also interesting to note the number of new faces attending this Ninth Annual Academy meeting. There was a 25 per cent increase in attendance this year over that of last year.

The Academy's annual banquet, held on Wednesday night, October 30, was attended by 120 persons. They were privileged to witness the presentation of Past Presidents Pins to all nine of the Academy's former presidents. The banquet speaker was Dr. Leon Hill of Amarillo, Texas, who gave everyone occasion for plenty of laughter with a superb display of humor throughout his talk. Dr. Richard R. Becker of Kansas City was presented with the president's gavel at the banquet by the outgoing president, Dr. Charles E. Martin of Ferguson.

Other officers elected during the business session were, Dr. P. V. Siegel, Smithton, President-elect; Dr. P. C. Hall, St. Louis, as vice president; and Drs. Edson Carrier, Kansas City, George Feist, Kansas City, Kenneth Knabb, Springfield, and Walter Gunn, St. Louis, as members of the Board of Directors. Dr. Kenneth Glover, Mt. Vernon, and Dr. Norton Eversoll, St. Louis, were elected delegates to the American Academy of General Practice; and Dr. Thomas L. Dwyer,

(Continued on page 1204)

Missouri Medical Meetings

Missouri State Medical Association Annual Session, St. Louis, April 13-16, 1958.
St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Society—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—fourth Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—March, May, October and December.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets third Friday of each month.
Johnson County Medical Society—meets only on call.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark-Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—first, third and fifth Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Webster County Medical Society—meets only on call.
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

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News

On September 22 more than 750 persons attended the cornerstone laying of the Baptist Memorial hospital at 6601 Rockhill Road in Kansas City. The ceremony signified the start of actual construction on a 9-story, 150-bed institution which is expandable to 286 beds without further exterior construction. Mr. Goldman Drury, director of the hospital, said approximately 18 months will be required to complete the two underground floors and the initial four floors above ground.

Among the notables attending the ceremony included former President Harry S. Truman, who served as honorary chairman of a fund-raising campaign for the hospital; Kansas City's mayor, H. Roe Bartle; and **John H. Mayer, Jr.**, M.D., the president of Jackson County Medical Society.

Kansas City physicians also honored on this occasion for their support on behalf of the hospital included the following: **Terry E. Lilly**, M.D., a past president of the board of trustees; **Milton B. Casebolt**, M.D., chairman of the executive committee; **Graham Asher**, M.D., **W. R. Eubank**, M.D., and **Claude J. Hunt**, M.D., all of whom are members of the board of trustees.

A Moberly physician, **Thomas S. Fleming**, M.D., recently was honored by the Missouri Heart Association for outstanding work in cardiology at a banquet held at Holiday Inn, St. Louis, in connection with the 4th annual postgraduate study of cardiology conference for general practitioners.

Dr. Fleming received the award from **Don Carlos Peete**, M.D., Kansas City, past president of the heart association.

The two-day cardiology conference, attended by some 75 physicians, was sponsored by the Missouri Heart Association and the St. Louis Heart Association.

The Missouri State Sanatorium at Mt. Vernon has received approval of the Residency Program in Pulmonary Diseases according to **C. A. Brasher**, M.D., medical director. The sanatorium had previously been approved for a residency program in Thoracic Surgery.

On October 1, **Wendell G. Scott**, M.D., St. Louis, was installed as president of the American Roentgen Ray Society meeting in Washington, D. C.

The Second Annual Scientific Session of the Jewish Hospital Center was held in St. Louis on November 4. **Arthur R. Bortnick**, M.D., St. Louis, was the program chairman. Officers of the Alumni Association are **M. H. Meyerhardt**, M.D., St. Louis, president; **Jules H. Kopp**, M.D., St. Louis, vice president; and **Daniel D. Klaff**, M.D., St. Louis, secretary-treasurer.

Two St. Louis physicians are scheduled to appear on the program of the Interim Session, American College of Chest Physicians meeting in Philadelphia, December 2 and 3. They are **Herbert C. Sweet**, M.D., who is discussion leader for the group on "Management of Emphysema," and **Alfred Goldman**, M.D., who is a discussion leader for the Fireside Conference on "Chemotherapy in Pulmonary Disease."

Robert E. Bruner, M.D., Kansas City spoke before the Unitarian Forum of the All Souls Unitarian Church in Kansas City on September 29. His subject was "The Complexities and Hopes of the Cerebral Palsied."

An invitation was extended to **E. Lee Dorsett**, M.D., St. Louis, to deliver a lecture to the students of the Medical School of Haiti at Port-au-Prince the latter part of November.

D. Elliott O'Reilly, M.D., University City, was recently elected president of the Missouri Society for Crippled Children and Adults, Inc.

Keith D. Jones, M.D., Warrensburg, recently spoke before the Warrensburg Secunda Club on the subject of mental health.

Guest speaker before the first fall meeting of the Northwest Missouri chapter of the American Academy of General Practice meeting in St. Joseph was **Jacob Kulowski**, M.D. Dr. Kulowski talked on "Supra Condylar Fractures of the Elbow and Complications."

The Cape County Journal, official publication of the Cape Girardeau Medical Society, has been selected to receive the 1957 Honor Award for Distinguished Service in Medical Journalism given by the American Medical Writers' Association. This award is one given for medical periodicals of county or city medical societies with membership less than 500 and whose organization does not employ an executive secretary or manager. **J. H. Keim**, M.D., Cape Girardeau, the present editor, received a plaque on which was engraved his name and the names of the former editors: Drs. **D. R. Seabaugh**, and **Milton Shoss** of Cape Girardeau, and **J. H. Trolinger**, Jackson. Names of succeeding editors will be placed on the plaque.

Nine Columbia physicians recently attended the 43rd annual meeting of the American College of Surgeons in Atlantic City. They were Drs. **Hugh E. Stephenson, Jr., Grafton Smith, John J. Modlin, Glenn L. McElroy, E. J. Schewe**, James K. Ritterbusch, Keith E. Pipes, and Pantalejmon Dziad.

Dr. Schewe, a staff surgeon at Ellis Fischel Cancer hospital, showed an exhibit of color transparencies illustrating comparative merits of x-ray and surgical treatments of cancer of the lip.

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John C. Blumenschein, M.D., Independence, recently spoke before a dinner meeting of the Independence Optimist Club on "what community resources are available to help the financially destitute member of our community in times of personal health crisis?"

The purpose of the dinner was to honor Dr. Blumenschein for services rendered to the community. Dr. Blumenschein and his family are planning to move to Central America to live and work among the Indians.

Drs. **Charles Grabske, James T. Van Biber,** and **Otto Elser**, all of Independence, were also guests.

Birkle Eck, M.D., Ladue, recently was elected president of the medical staff of Deaconess Hospital, St. Louis, succeeding **Clarence E. Mueller**, M.D., St. Louis. **Bert H. Klein**, M.D., St. Louis, was named vice president; and **Lee A. Hall**, M.D., Richmond Heights, as secretary.

Robert Kirschman, M.D., Joplin, recently spoke before a meeting of the council of the Sarcoxie Cancer Unit.

Participating on a panel program at the National Conclave of the American Academy of General Practice in Kansas City recently was **William J. Shaw**, M.D., Fayette. Dr. Shaw is a past president of the Missouri Academy of General Practice.

Ralph Ferguson, M.D., Joplin pathologist, recently spoke before the Jasper County Medical Secretaries and Assistants Society on "Experimental Cancer."

The Columbia Board of Education recently appointed **John T. Logue**, M.D., to the position of city public school physician.

A benefit dinner recently was held at the Chase Hotel in St. Louis to commemorate the 100th anniversary of St. Vincent's Hospital and to aid its $1,200,000 building fund campaign. Approximately $1,000,000 had been raised prior to the dinner.

The present campaign for funds is for the hospital's new neuro-medical building. The hospital is operated by the Daughters of Charity of St. Vincent de Paul. The nuns started their work in a four-bed log cabin hospital on the Mississippi riverfront in 1828, but date their hospital from 1858 when it branched off as an institution for the mentally ill.

Included on the program, which was televised over a 21-station network, was a discussion of the hospital's achievements in treating the mentally ill. Sister Anne, the administrator of the hospital, **William B. Lytton**, M.D., a member of the hospital's staff, and Milton Freedman, M.D., executive director of the Mental Health Association, participated in the discussion.

Nine St. Louis surgeons were among 23 Missourians recently inducted in New York City as Fellows of the American College of Surgeons. They are Drs. **Melvin A. Allen, Carl M. Fellhauer, Frank O. Richards, Shale M. Rifkin, Garland F. Smith, Belmont R. Thiele** and **Robert Rainey**, all of St. Louis, and **Drs. Allen P. Klippel** and **Fullerton W. Luedde** of Clayton.

Construction on the Texas County Memorial Hospital is now 20 per cent complete, according to the Texas County Hospital Board. Date of the cornerstone laying was October 26.

The Missouri State Medical Secretaries and Assistants bulletin has been awarded first place among such publications in the nation by the American Association of Medical Assistants meeting recently in San Francisco.

Mrs. Lester C. Shell, Fayette, has been editor of the Missouri publication since it was started five years ago.

Two Southeast Missouri physicians recently were appointed by Governor James T. Blair to serve on two state commissions. They were **E. L. Spence**, M.D., Kennett, who was reappointed to the Tennessee-Missouri Bridge Commission and **Arthur D. Markel**, M.D., Poplar Bluff, who was named to the state Resources and Development Commission.

Foundation work on the $650,000 kitchen-dining area for the St. Louis County Hospital in Clayton recently was started. The new facility will provide food service for about 450 patients—250 present plus 200 who are expected to occupy the new chronic building plus some 250 hospital staff members.

The structure is being erected with funds provided by the 1955 St. Louis county bond issue.

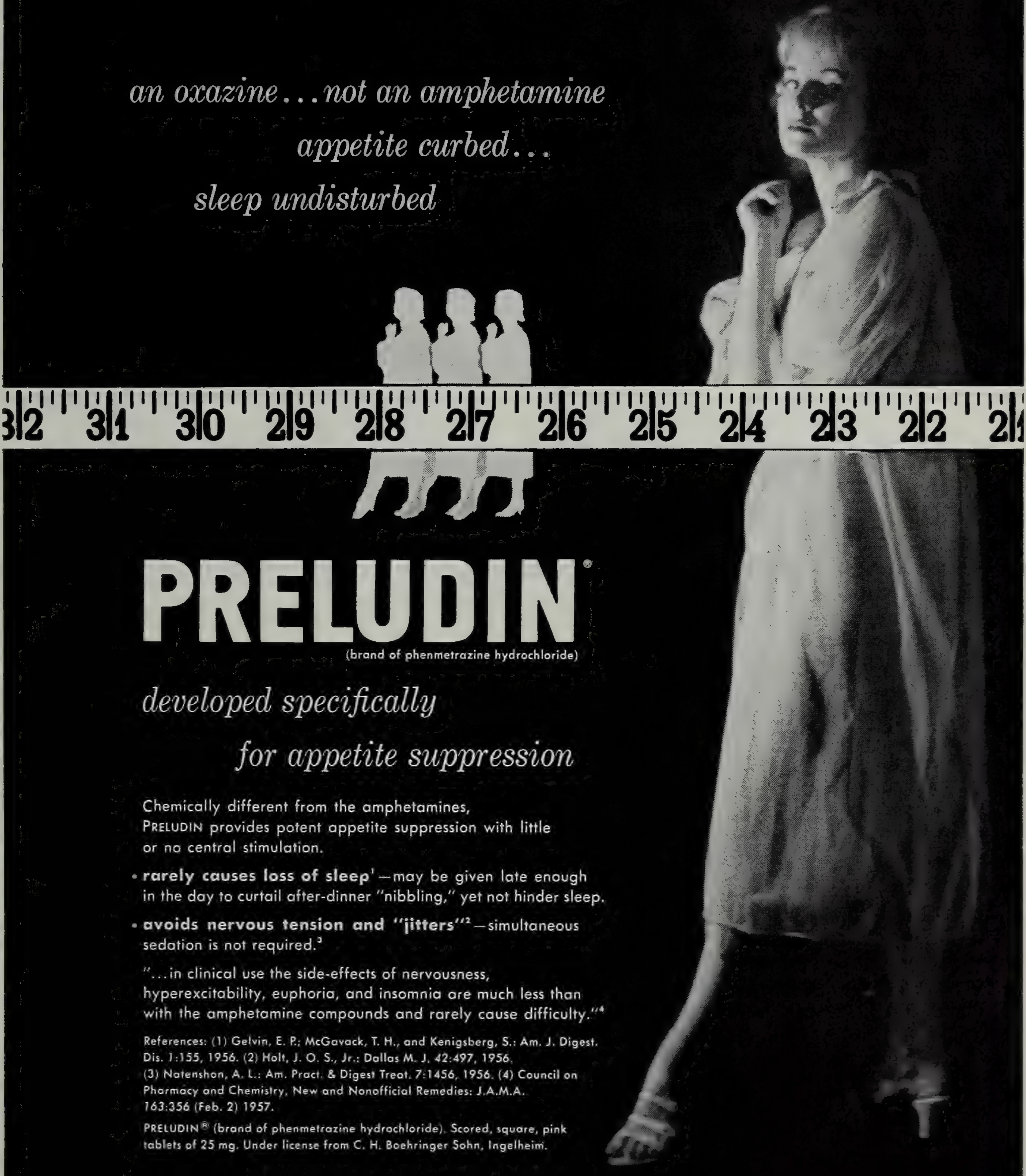
Recently a bill was introduced before the St. Louis Board of Alderman to change the official name of Malcolm Bliss Psychopathic Institute to Malcolm Bliss Mental Center. The administration sponsored the bill at the request of Bliss Medical Director, **George A. Ulett**, M.D.

A Medical Center is being planned in Butler to house the offices of **C. W. Luter**, M.D., and **D. C. Ronald**, M.D. Robert E. Woods, D.D.S., and Stanley H. Noe, optometrist, also will have offices in the proposed new medical center.

On September 20 the St. Francis Mountain View Memorial Hospital completed one year of operation under the management of the Franciscan Sisters. The "White Ladies" of Czechoslovkia had been transferred to this country after the Communists came to power in their country.

The active staff has consisted of Drs. **D. E. Tiffany**, Mountain View; **H. W. Miller** and **M. B. Perkins** of Willow Springs; and **M. L. Fowler** and **C. F. Callihan** of West Plains.

The courtesy staff consisted of Drs. **Frederick C. Coller**, pathologist, **William H. Penninger**, orthopedist, **Dallas Anthony**, radiologist, all of Springfield; **Rollin H. Smith**, West Plains; and **John R. Tarr** and **Thomas J. Burns** of Houston.



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References: (1) Gelvin, E. P.; McGavack, T. H., and Kenigsberg, S.: Am. J. Digest. Dis. 1:155, 1956. (2) Holt, J. O. S., Jr.: Dallas M. J. 42:497, 1956. (3) Natenshon, A. L.: Am. Pract. & Digest Treat. 7:1456, 1956. (4) Council on Pharmacy and Chemistry, New and Nonofficial Remedies: J.A.M.A. 163:356 (Feb. 2) 1957.

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Announcement has been made of the erection of a $1,000,000 Northland Medical building in Jennings. The building will be specially designed for medical and dental offices, with provision for facilities for laboratories and pharmacy.

Among the recent additions to the Kirkwood business district is the Doctors Building, located at 333 S. Kirkwood Road. Twenty-five office treatment rooms on three different levels are now utilized in this modern building. The ground level suite is occupied by **Frank J. Catanzaro**, M.D., Kirkwood. The second floor, comprising two complete suites is occupied by **John J. Duggan, Jr.**, M.D., Kirkwood.

The Buchanan Medical Society recently honored 10 St. Joseph physicians for 50 years of service in the field of medicine. The physicians whose combined years of service total over 500 years, were Drs. **Leroi Beck, John R. Elliott, Walter S. Hull, Gustav A. Lau, Arthur B. McGlothlan, William H. Minton, J. H. Morroway, B. B. Simmons, Baxter W. Tadlock**, and **John C. Whitsell.**

The guest speaker for the evening was C. M. Wilhelmj, M.D., professor of physiology at Creighton University school of medicine in Omaha, who spoke on "Gleanings From the Field of Medical History."

Arrangements for the meeting were made by the program committee: Drs. **H. Ewing Wachter**, chairman; **Paul M. Beck** and **Caryl A. Potter, Jr.**

Stanley R. Szymanski, M.D., the radiologist at Woodland Hospital in Moberly, recently was notified by the American Board of Radiology that he had successfully passed its new examination on nuclear medicine involving the use of radioactive isotopes and is now formally certified as a specialist in their use.

The x-ray department of the Woodland Hospital was cleared by the Atomic Energy Commission in February, 1956 for the use of radioactive materials in diagnosis and therapy, being one of the few departments in Missouri outside of St. Louis and Kansas City to be so recognized.

At the St. Louis meeting of the Mississippi Valley Medical Society, the members elected, on September 26, the following Missouri physicians as directors: Drs. **Walter T. Gunn** and **Robert B. Bassett**, both of St. Louis, for 2 year terms; and **William E. Henrickson**, Poplar Bluff, for a 1 year term.

At the 14th annual meeting of the American Medical Writers' Association, meeting in St. Louis on September 27-28, **Sidney W. Scorse**, M.D., Joplin, was elected as a director for a 2 year term. Dr. Scorse is the editor of the *Tri-State Bulletin.*

The guest speaker at a recent meeting of the Greene County Association for Mental Health was **Paul L. Barone**, M.D., superintendent of State Hospital No. 3, Nevada, who spoke on new developments in the treatment of the mentally ill.

James C. Cope, M.D., Columbia, recently assumed the duties as president of the Kansas City branch of the American Urological Association. Dr. Cope and Dr. **James E. Bumgarner**, also of Columbia, attended a meeting of the South-Central branch of the association on October 20-24 in Oklahoma City.

Dr. Elmer Ellis, president of the University of Missouri, recently announced the appointment of **Benedict A. Moranville, II**, M.D., Columbia, as assistant physician at the Student Health Service. Dr. Moranville is a resident physician at the University Medical Center.

A State Health Division official, **Lynn M. Garner**, M.D., Jefferson City, was recently installed as chairman of the Missouri Health Council. The Missouri Health Council, representing some 40 Missouri organizations with an interest in public health, is a planning agency for its member organizations.

Guest speaker before the Missouri Gamma Lambda Chapter of the Beta Sigma Phi meeting in Mexico recently was **Edgar S. Wallace**, M.D., who spoke on "Allergies."

The second in the fall series of Pettis County Medical Forums was presented recently in Sedalia. These forums are presented in the public interest by the Pettis County Medical Society.

The topic of the Forum was "Arthritis and Rheumatism," and **Thomas W. Burns**, M.D., associate professor in the department of medicine at the University of Missouri School of Medicine, Columbia, was the guest lecturer.

Miss Catherine Rand, assistant in the office of Harold Unger, M. D., Kansas City, was elected treasurer of the American Association of Medical Assistants at the convention in San Francisco, October 4-6, 1957.

At the 35th Annual Meeting of the Missouri Hospital Association and the Missouri State Nursing and Allied Homes Association, meeting jointly in St. Louis, October 30 and 31, the following guest speakers were featured:

Walter S. Sewell, M.D., Springfield, president of the Missouri State Medical Association, participated on a panel before the Missouri Hospital Association entitled "What Is Expected in Services From the Hospital for Better Patient Care," giving the viewpoint of the doctor. Dr. Sewell also addressed the annual banquet of the Missouri State Nursing and Allied Homes Association speaking on "What a Good Nursing Home Law Means to the Medical Profession."

H. M. Hardwicke, M.D., Jefferson City, acting director of the Missouri Division of Health, spoke on "The Problems of the Older Citizen in Missouri" at a luncheon meeting of the Missouri State Nursing and Allied Homes Association. Dr. Hardwicke also spoke before the Missouri Hospital Association on "Missouri Hospital Licensure and the Division of Health."

Appearing also before the Missouri State Nursing and Allied Homes Association were **Franz U. Steinberg**, M.D., St. Louis, who spoke on "A Rehabilitation

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*REFERENCE: J.A.M.A. 163: 359, 1957 (February 2)

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Program as It Might Apply to a Nursing Home," and **Paul N. Johnstone**, M.D., Kansas City, who spoke on "Progression of the Nursing Homes in Missouri."

Henry Allen, M.D., St. Louis, also was a featured speaker before the Missouri Hospital Association on the subject, "Missouri Association of Blood Banks."

Leo V. Mulligan, M.D., St. Louis recently became medical director and chief of staff at St. Louis City hospital, replacing Cyril J. Costello, M.D., St. Louis who had resigned.

DEATHS

Campbell, Albert J., M.D., Sedalia, a graduate of University of Missouri School of Medicine, 1904; honor member of Pettis County Medical Society; aged 81; died September 29.

McCall, W. K., M.D., Laddonia, a graduate of Barnes Medical College, 1897; honor member of Audrain County Medical Society; aged 80; died September 28.

Peters, Augustus W., M.D., St. Louis, a graduate of Washington University School of Medicine, 1906; a member of St. Louis Medical Society; aged 76; died October 16.

Quinn, Abram T., M.D., St. Louis, a graduate of Missouri Medical College, 1895; honor member of St. Louis Medical Society; aged 86; died August 31.

NEW MEMBERS

Arst, Herbert E., M.D., 1515 Lafayette Avenue, St. Louis 4. St. Louis Medical Society.

Avery, Clarence S., M.D., 2601 Whittier, St. Louis 13. St. Louis Medical Society.

Bandle, Donald F., M.D., 5400 Arsenal Street, St. Louis. St. Louis Medical Society.

Boughn, J. Kent, M.D., 1515 Lafayette Avenue, St. Louis 4. St. Louis Medical Society.

Bradley, Richard V., M.D., 100 North Euclid Avenue, St. Louis 8. St. Louis Medical Society.

Budd, John J., Jr., M.D., 9929 Manchester, St. Louis 22. St. Louis Medical Society.

Burris, Stanley A., M.D., 4216 South Kingshighway, St. Louis 9. St. Louis Medical Society.

Caciolo, Carlo, M.D., 1325 South Grand Blvd., St. Louis 4. St. Louis Medical Society.

Cherre, Anthony J., M.D., 4660 Maryland Avenue, St. Louis 8. St. Louis Medical Society.

Dodd, Robert B., M.D., 600 South Kingshighway, St. Louis 10. St. Louis Medical Society.

Finn, Murray E., M.D., 518 Frisco Building, St. Louis 1. St. Louis Medical Society.

Galbraith, Charles J., M.D., 1325 South Grand Blvd., St. Louis 4. St. Louis Medical Society.

Geise, August W., Jr., M.D., 5535 Delmar Blvd., St. Louis 12. St. Louis Medical Society.

Holtz, Alan S., M.D., 816 Beaumont Medical Building St. Louis 8. St. Louis Medical Society.

King, James P., M.D., 1465 South Grand Blvd., St. Louis 4. St. Louis Medical Society.

Kinney, Max W., M.D., Mound City. Holt County Medical Society.

Kissane, John M., M.D., 660 South Kingshighway, St. Louis 10. St. Louis Medical Society.

McLean, Harry A., M.D., 4924 Hampton Avenue, St. Louis 9. St. Louis Medical Society.

Machek, Otakar, M.D., 1325 South Grand Blvd., St. Louis 4. St. Louis Medical Society.

Miller, James E., M.D., 640 South Kingshighway, St. Louis 10. St. Louis Medical Society.

Miller, Norman C., M.D., 4960 Laclede Avenue, St. Louis 8. St. Louis Medical Society.

Mortensen, Frede, M.D., 3701 Grandel Square, St. Louis 8. St. Louis Medical Society.

Moses, Robert A., M.D., 640 South Kingshighway, St. Louis 10. St. Louis Medical Society.

Natoli, Cornelius A., M.D., 600 South Kingshighway, St. Louis 10. St. Louis Medical Society.

Potter, Reese H., M.D., 100 North Euclid Avenue, St. Louis 8. St. Louis Medical Society.

Schaerer, Jacques P., M.D., 6944 Chippewa, St. Louis 9. St. Louis Medical Society.

Shuman, Joseph S., M.D., 5400 Arsenal, St. Louis 9. St. Louis Medical Society.

Smart, Leon A., M.D., 4069a Easton, St. Louis 13. St. Louis Medical Society.

Sparks, Charles H., M.D., 4246 Koch Road, St. Louis 23. St. Louis Medical Society.

Sterkel, Richard L., M.D., 4161 Lindell Blvd., St. Louis 8. St. Louis Medical Society.

Tucker, Eugene F., M.D., 6420 Clayton Road, St. Louis 17. St. Louis Medical Society.

Winokur, George, M.D., 600 South Kingshighway, St. Louis 10. St. Louis Medical Society.

Editorials

(Continued from page 1175)

in England than in the United States while lung cancer incidence is much greater.'

"We might remark, without meaning to be facetious, that the lesser consumption of cigarettes in England is prefectly understandable to those who have tried smoking English cigarettes, although we only throw this remark in the pot as a personal observation. We do not wish to further becloud the issue by being quoted as another expert on his own tangent.

"Since everyone seems anxious to get in the act we might also quote a veterinarian patient who recently told us, 'in the past ten years the incidence of lung cancer in cattle has tripled. However,' he confided, 'so far as I know, none of them smoke.'

"Well, anyway, this is all very confusing to us. To the man on the street we doctors, with our experts, must begin to look like a bunch of beauties for sure.

"We would venture an opinion that the present cause of this whole investigation might be best served by a very loud silence. We clearly recall the clarion advice of our dear, old, gray-haired, second-grade teacher who angrily told us each day, 'Wilfred, keep your mouth shut until you have something to say.'

"A parting dismal shot to you readers is the recommedation of the British Medical Association, 'The Association firmly places before each physician the responsibility of setting a personal example to his patients by refraining from smoking.'

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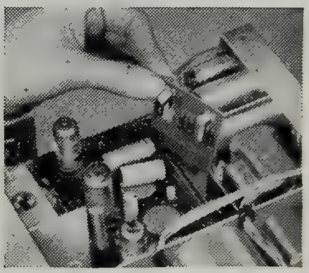

modern components, construction give greater durability

The transistors, printed wiring panels and smaller galvanometer that help make the new 18 pound VISETTE ecg the size of a brief case also make possible another — and equally important — advantage: *ruggedness.* Metal-encased transistors, most of them smaller than a pencil eraser, are used in place of many vacuum tubes in the Visette circuit; they can withstand extreme jolts, jars and vibration without damage. And instead of dozens of connections which would ordinarily be made with wire, conductive paths are *printed* on small, rigid phenolic panels. The Visette's direct-writing galvanometer, too, is designed for increased resistance to both physical and electrical hazards. The rigid metal frame and chassis, to which all units are anchored, is then housed in an outer case of high impact Royalite, reinforced with metal strips at points of greatest strain.

Here is *true* portability — a carefully designed combination of *light weight* (that every nurse and technician will appreciate); *small size* (that requires the same space on your desk as a letterhead); and *ruggedness*, that assures continued accuracy of operation after countless trips in your car, on hospital and house calls, wherever your Visette is required. Handy "companions" for the Visette include a protective vinyl Weather Cover, and a compact, attractive table for office use of the Visette.

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met October 10 at the Strand Hotel, Chillicothe. Including members, auxiliary members and guests, about 50 enjoyed the fine meal.

The following guests were introduced: Dr. Walter S. Sewell, President of the State Medical Association; Mrs. Sewell, Ray McIntyre, Field Secretary, Ed Schneider, Public Relations Counsel, Missouri State Medical Association; Dr. Charles D. Humberd, Barnard; Dr. and Mrs. Henry Bauman, Maryville (Mrs. Bauman is President-Elect of the Woman's Auxiliary to the Missouri State Medical Association), and drug firm representatives. The Auxiliary then retired to their meeting to be addressed by Mrs. Bauman.

Dr. Sewell spoke on "Your State Medical Association." This was a very interesting paper followed by questions and discussion. The Councilor, Dr. Donald M. Dowell and Field Secretary, Ray McIntyre both spoke of the importance of some of the problems of our profession as mentioned by Dr. Sewell.

The minutes of last meeting were read and approved. There being no further business, the society adjourned.

E. A. Duffy, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

St. Louis County Medical Society

The St. Louis County Medical Society held its regular meeting on Wednesday evening, October 9 at the County Health Center.

Following a short business session, introduction of new applicants and guests, the special program of the evening was presented. This consisted of a panel discussion on the subject, "The Staff Physician and Hospital Administrator." Members of the panel included: Jerome Simon, M.D., moderator, Norton J. Eversoll, M.D., A. N. Arneson, M.D., Mr. Harry Piper, Administrator, St. Luke's Hospital and President of the Hospital Council of Greater St. Louis, Mr. Harry E. Panhorst, Associate Director, Barnes Hospital and Washington University Clinics and President of the Missouri Hospital Association, and Mr. John Warner, Associate Director of Desloge Hospital.

Following short assigned talks by each panel member, a question and answer period climaxed the evening's presentation.

At the end of the formal session, all in attendance were invited to partake of refreshments served by the Woman's Auxiliary of the Society.

Robert A. Mayer, M.D., *Secretary*

Jefferson County Medical Society

The Jefferson County Medical Society held its regular monthly meeting at the Jefferson Memorial Hospital on October 15. The meeting was called to order at 8:30 p.m. by Dr. R. H. Donnell, the delegate, who was acting in the absence of the President and Vice-President. The scientific program consisted of a paper on periodic health examinations by Dr. Paul Hagemann, Associate Professor of Clinical Medicine at Washington University School of Medicine. His talk was well received and evoked some stimulating discussion.

The following members were present: Drs. Allee, Harold Donnell, R. H. Donnell, Kozal, Mayfield, Senn, and Rutledge.

John F. Rutledge, M.D., *Secretary*

Lincoln-St. Charles County Medical Society

A dinner meeting of the Lincoln-St. Charles County Medical Society was held Thursday night, October 24 at Covilli's Supper Club in St. Charles. The evening festivities began with a social hour followed by a steak dinner, and then the scientific program.

Joseph E. Flynn, M.D., of St. Louis gave an interesting and informative discussion of "The Management of Hand Injuries, Including Trauma and Infection." His talk was illustrated by an excellent set of color slides.

Besides the speaker, guests included Mr. William Brennan of St. Louis, field representative of Missouri Medical Service and Ray McIntyre, Field Secretary of the State Medical Association. Sixteen physicians were in attendance.

The scientific program was sponsored by the Missouri Academy of General Practice and physicians attending, who are members of the Academy, are entitled to one hour category I postgraduate credit.

Paul Rother, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held a dinner meeting Monday night, October 21 in the Pilot Lounge, Air Park Motel, Mexico, Missouri.

After a social hour and a very enjoyable dinner, the meeting was called to order by the President, Dr. Harry F. O'Brien.

Dr. O'Brien introduced the guest speaker, Dr. Ray Williams of St. Louis, Missouri, who spoke on the subject, "Nephrosis and Nephritis—Differential Diagnosis and Treatment." His talk was illustrated with colored slides.

The following were present: Drs. Thomas Dwyer, Leonard Davis, Lawrence K. Epple, Ben Jolly, William Jolly, Harold Lankford, Harry F. O'Brien and Mr. Keyton Nixon.

There being no further business, the meeting was adjourned.

Lawrence K. Epple, M.D., *Secretary*

"Christmas! Bah! Humbug!"

The man in the wheel chair leaned into the microphone. "Christmas!" he snarled. "Bah! Humbug!" And, as they had in Christmases past, millions of young listeners chilled at the mental picture of the baleful Scrooge.

It was a Christmas institution, back in the Forties, this annual reading of Charles Dickens' classic. Its reader was something of an institution himself. In his turbulent lifetime he had been an unsuccessful painter but a good amateur second-baseman, a composer whose music was played by the New York Philharmonic, and a model for Frederick Remington.

To most people, though, he was Lionel Barrymore, the actor, and they loved him.

He was both crusty and kindly (he loved reading "A Christmas Carol"), adventurous, stubbornly independent in thought and outlook. And game as they come. Although an accident in 1936 imprisoned him in a wheel chair, he went resolutely on—working in motion pictures and making public appearances for nearly twenty years more.

No question but that Lionel Barrymore was one-of-a-kind. Yet the qualities so richly combined in him exist in a large measure among all the 170 million of us who call ourselves Americans.

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EIGHTH COUNCILOR DISTRICT

W. W. TILLMAN, SPRINGFIELD, COUNCILOR

Ozarks Medical Society

The Ozarks Medical Society met in Cassville, Missouri on October 8 wth 32 members, auxiliary and guests present. The program was presented by Dr. J. E. Collins of Joplin on "Office Urology."

Following the business meeting, a lively discussion regarding the various aspects of holding polio clinics and school immunization clinics in the various counties was held, and it was decided to request from the State Health Department a clarification of policies regarding polio and other immunization clinics in the future.

The next meeting on November 12 is to be held in Aurora.

A. J. Graves, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Southeast Missouri Cancer Conference

Some 75 doctors from southeast Missouri and southwest Illinois attended the afternoon and evening session of the Fourth Annual Southeast Cancer Conference at the Marquette Hotel at Cape Girardeau, Missouri on Octobr 13. An outstanding program was presented which included discussions by the followng: Robert J. Booher, M.D., Park Medical Group and assistant professor of Clinical Surgery, Cornell University Medical College; William E. Long, M.D., Instructor in Radiology, University of Tennessee Medical College, Memphis, Tennessee; James B. King, M.D., Medical Director, Cardinal Glennon Memorial Hospital for Children, St. Louis, Missouri, and Associate Professor and Director of the Department of Pediatrics, St. Louis University, H. R. McCarroll, M.D., Associate Clinical Professor of Orthopedic Surgery, Washington University, St. Louis.

Following the evening cocktail hour and dinner, a number of tumor cases from the files of the tumor services of St. Francis Hospital and Southeast Missouri Hospital of Cape were presented. The four visiting speakers previously mentioned were called upon to discuss these cases. These Cancer Conferences have been sponsored by the Cape Girardeau Medical Society in cooperation with the Missouri Division, American Cancer Society, Missouri State Medical Association and the Missouri Academy of General Practice, however, the major part of the credit for these fine programs must be given to the arrangements committee of the Cape Girardeau Medical Society whose Chairman this year was T. A. Lovinggood, M.D., of Cape Girardeau.

NEW TRENTON HOSPITAL COMPLETED

The foresight of the late James B. Wright, M.D., has resulted in a new 35-bed hospital for the residents of Trenton. The new structure replaces the original hospital built there in 1903 by Dr. Wright.

This completely air-conditioned hospital was built recently at Trenton under provisions of the will of the late James B. Wright, M.D., who died in 1937 at the age of 77.

When Dr. Wright died in 1937, his will directed that the original hospital should be continued under a trusteeship until the need for a new hospital should arise.

Recently the trustees decided the need had arisen and built the only completely air-conditioned hospital in rural north Missouri.

Some Hill-Burton funds were used for the building that cost more than $380,000. A $10,000 grant from the Ford Foundation helped equip it.

The building embodies the latest thinking in modern hospital layout and operation. Oxygen is piped throughout the building. There also is an elaborate communication system, permitting 2-way conversation between the patient and the control nursing station.

Dr. Wright, who spent most of his life in Grundy County, served as a Councilor in the Missouri State Medical Association many years. He was first elected in 1919. He was 77 years old when he died.

He earned the money for his medical education by teaching school. He returned to Trenton to practice in 1896, soon after graduating from the old Missouri Medical College.

During his busy 40-odd years as physician in Trenton, he found time to: Serve as mayor in 1921 and help float a vital water bond issue; help establish the Trenton Trust Company and serve as president for many years; take an active interest in various Masonic groups, serving all of them in an executive role, as well as various other groups, and civic organizations.

More than 2,500 persons toured the hospital on its opening day in August, which was highlighted by an emergency appendectomy just a few minutes after patients were moved from the old structure.

Physicians, all members of the MSMA, present for the opening were: Drs. Edgar A. Duffy, Oliver F. Duffy, David M. Whitten, William A. Fuson, Edgar J. Mairs, Chester L. Clark, Herbert C. Kimberlin and Charles H. Cullers, Trenton; Dr. Arthur S. Bristow, Princeton, and Drs. James R. McVay, James R. McVay, Jr., Albert E. Upsher, and Arthur Graham Asher, Kansas City. The McVays and Asher formerly lived in Trenton.

Evidence continues to accumulate verifying the effectiveness of Gelatine in the treatment of brittle fingernails. Investigators report that the nails show objective evidence of improvement.[1,2,3,4] Furthermore, patients often volunteer that their nails "feel stronger," "look smoother," and "I can pick up things without them hurting."[1] Evidently the subjective sensations associated with improvement are nearly as important to some patients as the positive physical change in the nails' appearance.

Improvement Noted in 81% of Patients

See the chart below for a summary of the effect of Knox Gelatine in brittle fingernails as observed in all published reports. Photographic evidence of improvement, much of it in color taken before and during treatment, is available for most of the patients.[1,2,3] Please note, however, that where Gelatine was used in the treatment of pathological conditions associated with brittle fingernails only in psoriasis did the data show definite improvement.[1,3,4]

Response to Gelatine in Brittle Fingernails

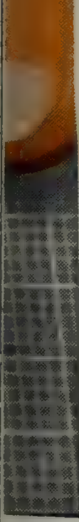
References	Dosage	Duration of treatment	No. patients w/ brittle nails	No. patients improved	No. patients w/ brittle nails and other pathology	No. patients improved
1. Rosenberg, S., Oster, K. A., Kallos, A. and Burroughs, W.: *A.M.A. Arch. Dermat* 76:330, (September) 1957	7 Gm./ day	3 months	**50**	**43** (86%)	**32**[a]	**9**
2. Schwimmer, M. and Mulinos, M. G. *Antibiot. Med. & Clin. Therapy* 4:403, (July) 1957	7.5 Gm./ day	11-16 weeks	**18**	**15** (83%)		
3. Rosenberg, S. and Oster, K. A.: *Conn. State Med. J* 19:171, (March) 1955	7 to 21 Gm./day	15 weeks	**36**	**26**[b] (72%)		
4. Tyson, T. L.: *J. Invest. Dermat.* 14:323, (May) 1950	7 Gm./day	13 weeks	**12**	**10**[c] (83%)		
Totals	7-21 Gm.	11-16 weeks	**116**	**94** (81%)	**32**	**9** (28%)

a. Gelatine improved psoriatic nails in 5 out of 12 cases. In onychomycosis and other pathological conditions of the nail it was of no appreciable help.

b. Of the failures, 2 had congenital disease of the nails, 3 were diabetics and 3 took the medication for less than one month.

c. One patient with psoriasis and arthritis and one patient with psoriasiform nail changes showed improvement in 2 and 3 months respectively.

BRITTLE FINGERNAILS



Important Note

The pharmacodynamic effects of Gelatine are manifested through its high Specific Dynamic Action, and therefore, depend upon adequate and prolonged intake. All published clinical research has been conducted using 7 to 21 grams (1-3 envelopes) of Knox Gelatine per day for the three to four months that are required for complete regrowth of the nails. Smaller dosage would induce a lesser specific dynamic action and thus prove ineffectual in correcting the brittle nail defects. More detailed information on brittle fingernails and reprints of the two more recent clinical reports are available on request. Please use the attached coupon.

Knox Gelatine Company
Professional Service Department SJ-27
Johnstown, N. Y.

Please send reprints of the following articles:

☐ Rosenberg, S., Oster, K. A., Kallos, A. and Burroughs, W.: *A.M.A. Arch. Dermat.* 76:330, (Sept.) 1957.

☐ Schwimmer, M. and Mulinos, M.G.: *Antibiot. Med. & Clin. Therapy* 4:403, (July) 1957.

YOUR NAME AND ADDRESS

From the Medical Schools

UNIVERSITY OF MISSOURI

Meetings Held at the Medical Center

The University of Missouri School of Medicine in cooperation with the Council on Foods and Nutrition of the American Medical Association, the Adult Education and Extension Service and the Boone County Medical Society sponsored a symposium entitled "Nutrition in Pregnancy" on Friday, October 11, 1957, held in the Auditorium of the University of Missouri Medical Center. Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, planned the meeting and acted as moderator for it. Approximately 175 nutritionists, home economists, physicians and medical students attended.

Visitors to the University of Missouri Medical Center

Dr. F. A. Quadfasel, chief of neurology, Boston Veterans Administration, Boston, Massachusetts, and lecturer in neurology at Harvard University, visited the campus of the University of Missouri School of Medicine on Monday, October 14 as a guest of Dr. H. V. Guhleman, assistant professor of psychiatry and neurology. Dr. Quadfasel met with the first year class and with other members of the faculty and staff of the Departments of Medicine and Pediatrics for discussion of aphasia and speech disturbances.

Trips and Talks of the Faculty

Dr. Roscoe L. Pullen, Dean of the School of Medicine, extended greetings to those attending the symposium on "Nutrition in Pregnancy" held at the Medical Center on October 11, 1957.

A special lecture was given by Dr. Jerry W. Brown, assistant professor of anatomy, on October 7, 1957, to the medical students and staff on the "Neuroanatomy of the Vertebral Column and Spinal Cord."

Dr. F. E. Doenges, instructor in anatomy, traveled to St. Louis on October 10, 1957, to meet with Dr. James O'Leary, professor of neurology, at Washington University School of Medicine, to discuss with him the research program which Dr. Doenges is carrying out on the autonomic nervous system utilizing oscilloscopic technics.

On October 15, 1957, Dr. Thomas W. Burns, associate professor of the Department of Medicine, spoke to the Pettis County Medical Society Forum in Sedalia, Missouri, on the topic "Present Day Concepts of Arthritis." Approximately 170 attend this forum.

Dr. John Killough, associate professor of the Department of Medicine, and Dr. J. M. Martt, assistant professor of medicine, attended the Midwestern Cardiac Conference held in Iowa City, Iowa, from October 3 to October 5. The meeting was sponsored by the Iowa Heart Association and American Heart Association and attended by approximately 200 of the profession.

On September 15, 1957, Dr. Herbert S. Goldberg, associate professor of the Department of Microbiology, attended and participated in a meeting held in Washington, D. C., for medical research workers and sponsored by the Food and Drug Administration of the Department of Health, Education and Welfare. Dr. Goldberg presented a paper entitled "Effect of Low Level, Long-Term Feeding of Streptomycin on Emergence of Streptomycin Resistant Bacteria." Approximately 400 were present for the entire program.

On September 19, 1957, Dr. J. S. Roden, associate professor and chairman of the Department of Obstetrics and Gynecology, and Doctors Harold M. Haugen and William P. Pingleton, instructors in obstetrics and gynecology, attended a symposium on "Uterine Bleeding" held in Fulton, Missouri, and sponsored by the Callaway County Medical Society.

Dr. Joseph E. Flynn, professor and chairman of the Department of Pathology, attended a workshop of the Institute of Graduate Training in Pathology at the Roosevelt Hotel in New Orleans, Louisiana, on September 26, 27 and 28.

On September 30, Dr. Flynn presented the summary and conclusions of the workshop at a plenary session of the College of American Pathologists and the American Society of Clinical Pathology in New Orleans.

Dr. Flynn also presided at a meeting of the Missouri Society of Pathologists on October 4 in New Orleans.

Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, participated in a panel discussion on "Chronic Diseases in Infancy and Childhood" held September 27, 1957, in St. Louis. The discussion was sponsored by the Mississippi Valley Medical Society.

On September 17 and 18, Dr. Jackson attended a meeting of the Scientific Advisory Committee of the Evaporated Milk Association in Chicago, Illinois. The basic research program was outlined and supporting studies discussed. Sixteen attended this meeting.

Dr. Jackson also planned and acted as moderator for the symposium on "Nutrition in Pregnancy" held October 11 at the Medical Center.

Dr. Ray Hepner, associate professor of pediatrics, presented an illustrated lecture on the "Influence of Maternal Nutritional Level on the Infant and Fetus" as part of the program for the symposium on "Nutrition in Pregnancy" held October 11 at the Medical Center.

On October 3, Dr. Clement E. Brooke, assistant professor of pediatrics, and Dr. Paul Zee, assistant instructor in pediatrics, attended the fall conference of the Kansas City Southwest Clinical Society in Kansas City, Missouri. Approximately 400 attended the conference. Dr. Brooke and Dr. Zee also visited the Departments of Pediatrics and Surgery of Kansas University on this date.

Dr. Brooke attended a meeting of the American Academy of Pediatrics held in Chicago, Illinois, from October 6 to October 9. Approximately 2,000 attended the lectures and exhibits of the Academy.

Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology, participated in a symposium on "Benign Lesions of Bone in Childhood" sponsored by the American Roentgen Ray Society on September 29 to October 4 in Washington, D. C. Dr. Lodwick presented an exhibit on "Patterns of Bone Destruction Related to Survival in Primary Bone Tumors" which won the certificate of merit of the American Roentgen Ray Society. Approximately 1,500 people attended the meeting.

Dr. Hugh E. Stephenson, Jr., professor and chairman of the Department of Surgery, was the guest speaker at the Annual Ex-Intern Day at St. Elizabeth Hospital in Youngstown, Ohio, on September 5, 1957. Dr. Stephenson spoke on "Facts and Fallacies of Cardiac Arrest and Resuscitation" before approximately 200 physicians.

On August 27, 1957, Dr. Stephenson visited the Department of Surgery of the University of Miami in Miami, Florida. On July 17, 18 and 19, Dr. Stephenson visited Dr. Denton Colley in the Department of Surgery at Baylor University School of Medicine in Houston, Texas, and on August 30, 31, and September 1 and 2, Dr. Stephenson visited the Department of Surgery of the University of Tennessee in Memphis, Tennessee.

New Appointments

The following physicians have been appointed as preceptors in General Practice: Dr. James R. Allen and Dr. Wallace Carpenter of Rock Port, Missouri.

Medical Library News

William K. Beatty, medical librarian, attended the 14th Annual Meeting of the American Medical Writers Association in St. Louis on September 27 and 28.

Gifts and Grants

Dr. T. D. Luckey, professor and chairman of the Department of Biochemistry, has been awarded a grant in the amount of $28,400 by the National Science Foundation of Washington, D. C., for the study of the "Role of Intestinal Microorganisms in Vitamin Nutrition in the Chicken."

A grant in the amount of $4,140 has been awarded to Dr. A. Merrich, assistant professor of Physiology, by the United States Public Health Service for the study of "Effects of Cations Upon Cardiac Glycogen Synthesis."

WASHINGTON UNIVERSITY

Groundbreaking

Groundbreaking ceremonies for the new Irene Walter Johnson Institute of Rehabilitation of the Washington University Medical Center were held recently at the building site on Euclid Avenue, between McMillan Hospital-Oscar Johnson Institute and the Washington University Clinics. It is anticipated that the air-conditioned building, which will cost approximately $725,000, will be completed in 15 months. The ground was broken by Irene Walter Johnson, daughter of Mr. and Mrs. Oscar Johnson, and James Lee Johnson, Jr., son of Mr. and Mrs. Johnson. They are grandchildren of the late Mrs. Irene Johnson for whom the institute is named and the principal donor of funds. Mrs. Johnson, who died in 1954, was the widow of Oscar Johnson, the president of International Shoe Company at the time of his death in 1916. Brief talks were given by James Lee Johnson, vice president of International Shoe Company; Chancellor Ethan A. H. Shepley, and Dean Oliver H. Lowry of the medical school.

Russian Visitors

Six women doctors from the Soviet Union visited Washington University School of Medicine Oct. 24 through 26. Dr. Edward W. Dempsey, assistant to the dean, arranged for the visitors to attend conferences and visit laboratories and departments at the school, including the departments of anatomy, medicine, preventive medicine, radiology, pathology and surgery. Dr. Helen Tredway Graham, professor of pharmacology; Dr. Margaret G. Smith, professor of pathology;

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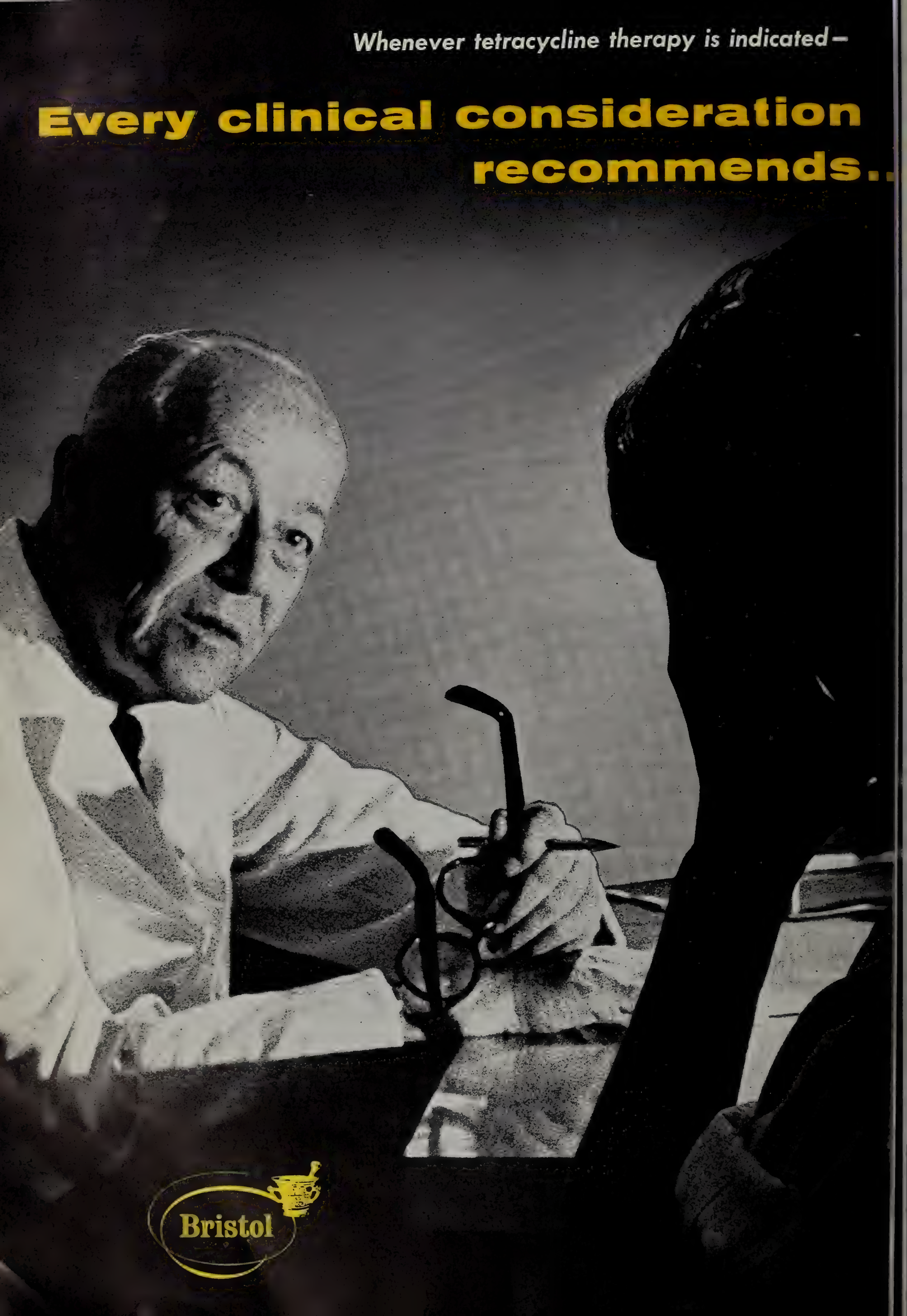
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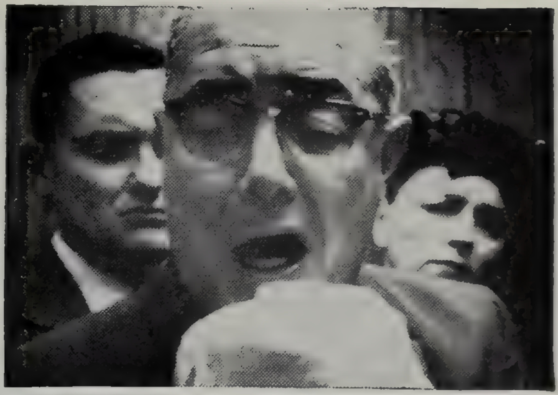

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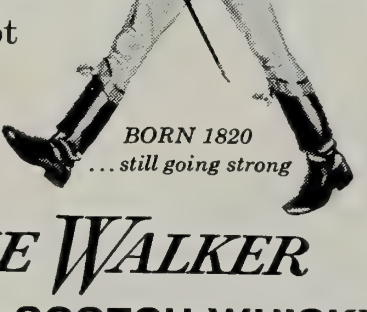

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and Dr. Mildred Trotter, professor of gross anatomy, met with the visitors and made arrangements for the guests to meet other noted women faculty members. The visitors also were entertained at a dinner given by Chancellor Ethan A. H. Shepley on behalf of the university. The visiting delegation was headed by Dr. E. A. Vasyukova, director of the Institute of Experimental Endocrinology of the Ministry of Health of the U.S.S.R., Moscow. Others in the party were: Dr. A. K. Shubladze, laboratory head of the Ivanov Institute of Virology of the Academy of Medical Sciences of the U.S.S.R., Moscow; Dr. M. N. Fateyva, head of the radiology clinic of the Institute of Labor Hygiene and Occupational Disease of the Academy of Medical Sciences of the U.S.S.R., Moscow; Dr. N. A. Dzhavakhishvili, head of the department of experimental anatomy of the Institute of Experimental Morphology of the Academy of Sciences of the Georgian Socialist Republic, Tbilisi; Dr. N. I. Perevodchikova, senior scientific worker of the Institute of Experimental Pathology and Cancer Therapy of the Academy of Medical Sciences of the U.S.S.R., Moscow; and Dr. A. M. Shishova, faculty assistant in therapy of the First Moscow Medical Institute.

Grants

Grants totaling $1,299,852 have been awarded to the School of Medicine by the U. S. Public Health Service, Dean Oliver H. Lowry has announced. These grants, most of which were effective Sept. 1, support 84 projects being conducted by staff members at the medical school. Of the amount awarded to the school $1,004,069 has been designated for research, and $291,327 for training programs. Miscellaneous grants of $4,456 for a post-sophomore fellowship and laboratory expenses in connection with two other fellowships also were awarded. New research grants have been awarded to: Dr. Arthur Kornberg, professor and chairman of the department of microbiology, $65,427; Dr. E. V. Cowdry, director of the Wernse Laboratory of Cancer Research, $28,582; Dr. Marguerite A. Constant, assistant professor of biochemistry in ophthalmology, $27,629; Dr. Jack L. Strominger, assistant professor of pharmacology, $18,112; Dr. David M. Kipnis, assistant professor of biochemistry in medicine, $14,000; Dr. Martin Silberberg, associate professor of pathology, $13,013; Dr. Albert B. Eisenstein, assistant professor of medicine and of preventive medicine, $12,977; Dr. Jerard Hurwitz, instructor in microbiology, $10,484; and Dr. Paul E. Lacy, assistant professor of pathology, $10,000. Other recipients include: Dr. Joseph W. Noah, assistant professor of clinical medicine, $8,230; Dr. Charles H. Nicolia, assistant professor of urology, $7,360; Dr. Arthur Hess, assistant professor of anatomy, $6,173; Dr. Frederick W. Klinge, assistant in physiology and in clinical surgery, $5,853; Dr. W. Stanley Hartroft, Mallinckrodt professor of pathology and head of the department, $5,750; Dr. Herman W. Reas, assistant in clinical pediatrics, $2,300; and Dr. Fred C. Reynolds, professor of orthopedic surgery, $1,999. A new training grant of $50,000 was awarded to the school to encourage student research. Dr. Theodore E. Walsh, professor of otolarynology and head of the department, received $22,026 for otolaryngology training; and Dr. Hartroft was given $14,094 to train medical graduates in the field of experimental pathology of cancer.

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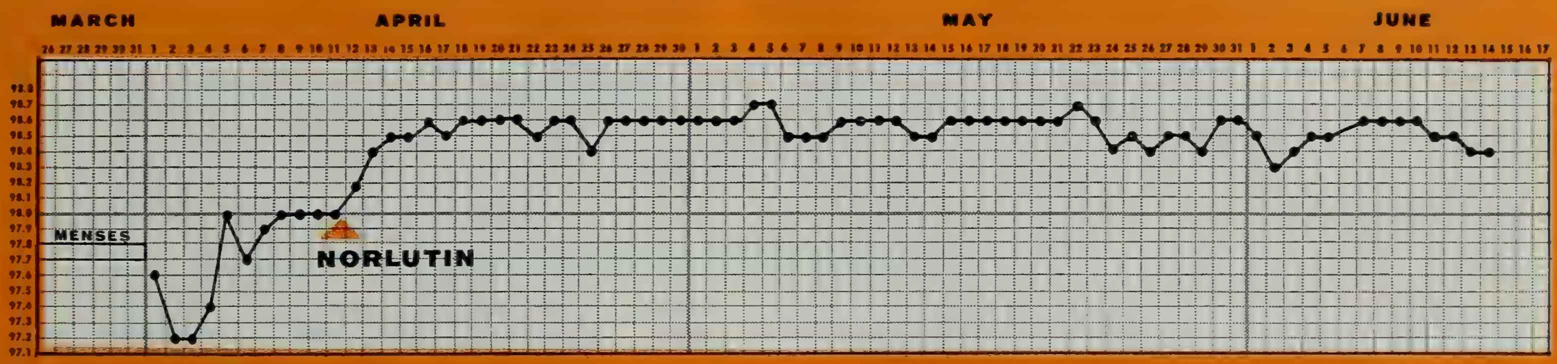

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Meetings

Five medical students received awards for excellence in academic work during the last school year at a meeting of the Washington University Medical Society held October 23 at the Medical Center. The students and the awards they received were: Donald R. Harkness, a senior student, the Alumni Scholarship Award; Joseph D. Bybee, the George F. Gill Prize in anatomy and the Nu Sigma Nu award as the outstanding freshman student; Albert L. Rhoton, Nu Sigma Nu award as the outstanding sophomore student; Richard D. Aach, Roche award for outstanding work during the first two years in medical school; and David Hammond, biochemistry prize. Four research papers by faculty members were given at the meeting after the presentation of undergraduate awards. Participants and their papers were: Dr. A. J. de Lorenzo, instructor in anatomy, "Electron Microscopy of Sensory Receptor Neurons"; Dr. William H. Daughaday, associate professor of medicine, "The Binding of Steroid Hormones by Plasma Proteins"; Dr. Gordon M. Schoepfle, associate professor of physiology, "Studies on the Mechanism of Anesthetic Action in Isolated Single Nerve Fibers," prepared in collaboration with Duane C. Hellam, junior medical student, and Floyd E. Bloom, sophomore medical student; and Dr. Helen B. Burch, associate professor of pharmacology, "Biochemical Changes in Liver Associated With Kwashiorkor in Guatemalan Children."

Trips

Dr. Lauren V. Ackerman, professor of surgical pathology and of pathology, recently returned to St. Louis after a brief European trip. In Stockholm, Sweden, he spoke at the Karolinska Institutet, and visited cancer facilities there and in Copenhagen, Denmark. In Paris he attended a meeting of the committee on nomenclature of tumors of the International Union Against Cancer, returning to this country for a meeting of the subcommittee on oncology of the National Research Council.

Dr. E. V. Cowdry, director of the Wernse Laboratory of Cancer Research at the Medical School, discussed "Significant Trends in Research" recently at a research conference on the growth and aging factors of maturing man at the Lankenau Hospital, Philadelphia. Dr. Cowdry also attended meetings in Washington, D. C., Miami and Cleveland to help arrange various gerontologic and cancer congresses.

SAINT LOUIS UNIVERSITY

Guest Lecturers and Visitors

Dr. Donald Teare, consultant pathologist to Scotland Yard, was the guest of the Pathology Department October 21 to October 24. He delivered five lectures during his stay in St. Louis. He spoke on "Air Embolism in Surgical Procedures" at Veteran's Hospital October 21, and was honored at a dinner at the Chase Hotel that evening, which was attended by pathologists, criminal lawyers and law enforcement authorities. Following the dinner, Dr. Teare reviewed circumstances of the trial of Dr. John Bodkin Adams, an English physician recently acquitted of murdering an elderly woman by an overdose of drugs. On October 22 Dr. Teare spoke before the Police Academy on "Sex Crimes and Sex Criminals." The following day he delivered a lecture on "The Forensic Significance of Death in Abortion" and "The Murders of Ronald Chesney" at the St. Louis University School of Medicine.

Dr. Jack Colover, assistant neurologist at Brook Hospital and Canadian Red Cross Memorial Hospital, Taplow, England, delivered two lectures at the School of Medicine October 24 and 25. He spoke on recent developments in allergic encephalomyelitis before the medical faculty and medical seminar.

Dr. Arthur C. Guyton, Chairman, Department of Physiology and Biophysics, University of Mississippi Medical Center, delivered the annual "William H. Vogt Lectureship" at the School of Medicine October 24. His subject was "The Application of Basic Physical Principles to Medical Research."

Two microbiologists from the Institute of Microbiology, University of Brazil, toured the microbiology laboratories at the School of Medicine October 10 and 11. The visitors were Drs. O. G. Bier and Paulo de Goes. The tour was sponsored by the Rockefeller Foundation.

Talks and Trips

Dr. James W. Colbert, Jr., Dean, School of Medicine, attended the 68th Annual Meeting of the Association of American Medical Colleges in Atlantic City October 21 to 23. He served as Chairman of the Continuation Education Meeting. Dr. Armand E. Brodeur, Assistant Dean, represented the School of Medicine on the Committee on Educational Research.

Dr. C. Rollins Hanlon, Director of the Department of Surgery, spoke before the active medical staff of Mansfield General Hospital, Mansfield, Ohio, on "Cardiovascular Surgery" October 9. He lectured also on "Basic Principles on Management of Chest Injuries." He also participated in a panel discussion on cardiovascular surgery. The program was held in conjunction with Harro Woltman Postgraduate Day.

Dr. Hanlon also participated in the meeting of the New York Academy of Sciences which was held in Atlantic City October 15 to 18. He presented a paper titled "Cardiac Metabolism Under Conditions Associated With Open Heart Operations: Coronary Sinus Flow and Myocardial Oxygen Consumption." The paper was written by Dr. Hanlon and Dr. Vallee Willman, senior instructor in surgery, who also attended the meeting. Dr. Walter J. Burdette, professor of clinical surgery and director of the St. Louis University Surgical Service at Veterans Hospital, spoke on "Cellular Aspects of Tumorigenesis" before the same meeting. Also attending the meeting were: Dr. Leo V. Mulligan, associate professor of clinical surgery, and Dr. Theodore J. Dubuque.

Dr. James P. King, director of the department of pediatrics, spoke on "Acute Leukemia" before the Southeastern Missouri Cancer Conference held at Cape Girardeau, October 13. The conference was sponsored by the American Cancer Society.

Four members of the faculty attended a meeting of the Central Association of Obstetricians and Gynecologists held in Omaha, Nebraska, October 24, 25 and 26. They were Dr. Roy V. Boedeker, assistant professor of clinical gynecology and obstetrics; Dr. Joseph A. Hardy, associate professor of gynecology and obstetrics and director of the department; Dr. William H. Vogt, Jr., assistant professor of clinical gynecology and obstetrics, and Dr. Matthew W. Weis, assistant professor of clinical gynecology and obstetrics.

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Dr. James W. Colbert, Jr., Dean, School of Medicine, served as a moderator of a Workshop at the Fifth Annual Institute on Religion and Psychiatry held in St. Louis October 25. The Workshop was titled "Concept of the Self." Dr. Philip A. Katzman, professor of biochemistry, presided over a workshop titled "The Problem of Communication."

Grants

Dr. Maurice Green, assistant professor of microbiology, has been awarded a three year grant of $38,216 by the United States Public Health Service for studies on the biochemistry of virus multiplication. The aim of Dr. Green's studies will be to understand the controlling mechanisms of virus infections. It is hoped that information obtained in his investigations may eventually prove useful in designing chemotherapeutic agents to combat virus diseases.

Dr. Edward A. Doisy, Jr., associate professor of internal medicine, has been awarded a $5,400 annual grant by The Nutritional Foundation for studies on the nutritional influences on bile. He and his colleagues are studying the influence of dietary components on liver function. Their work consists of analyzing bile collected from animals that are on diets similar to those causing deficiency diseases in the human. Dr. Doisy's findings may give clues to a better understanding of human liver disease and interesting leads to the human's specific need for vitamins to supplement body deficiencies.

Dr. Alfred W. Richardson, associate professor of physiology, has been awarded a grant renewal of $10,000 by the Office of Naval Research. Under the grant, Dr. Richardson is studying biological changes in albino rats exposed to an excessive magnitude of radar so that he can predict what would happen if a human were exposed to the same magnitude. Dr. Richardson's investigations are designed to show what physiologic and pathologic changes occur in tissues as a result of radar exposure.

Washington

(Continued from page 1132)

present rate of 80,000 a year in the United States; shortening of life, a few days at the worst; bone cancer, possibly no effects at all in a lifetime.

About 100,000 people are employed on atomic energy projects in the United States according to a handbook issued by the U. S. Office of Education. The projects range from missiles to medical research.

Universities, hospitals and research institutions now have about 400 research contracts with the Atomic Energy Commission in medicine and other life sciences, and another 400 contracts are in effect in the physical sciences.

The booklet lists shipment of 12,585 packages of radioisotopes to 2,360 instititutions in the U. S. and to 46 foreign countries in 1956. AEC products were described as useful in the study of anemia, arthritis, cancer, diabetes, heart disease, leukemia, mental diseases, nervous diseases and some chronic illnesses.

The Public Health Service and the National Tuberculosis Association report that although active tuberculosis has declined 30 per cent in the last five years almost 40 per cent of the active cases are unknown to health authorities.

Presently there are about 250,000 people known to have tuberculosis in its active form. (The "unknown" cases were estimated on the basis of x-ray survey findings.)

Inactive cases requiring supervision of health departments total 550,000.

The Third Party in Medicine

(Continued from page 1170)

posed federal aid for the construction of medical school facilities which he said appeared to meet both tests; also the appropriations for the National Institutes of Health for Medical Research, and the Hill-Burton program.

He compared these with plans for compulsory health insurance which "would have resulted in substantial curtailment of the independent character of private insurance carriers and prepayment organizations . . . (a plan) that has met with my opposition."

Harris summed this position up by adding, "there appears to be no clearly demonstrated need for such a far-reaching program, first, and that the methods proposed . . . directly injected the Federal Government as a third party in the physician-patient relations."

Musings From the Field Secretary

(Continued from page 1178)

Mexico, and Dr. Cecil Leitch, Kansas City, alternate delegates.

Dr. J. H. Trolinger, Jackson, has another year of his three year term as secretary-treasurer. Dr. Charles E. Martin, Ferguson, the immediate past president, becomes chairman of the Board of Directors.

Dr. Wyeth Hamlin, Hannibal, who was chairman of the Academy's education committee this year and whose committee developed the entire program for the Ninth Annual Assembly, has been reappointed chairman of that committee for another year. Dr. Hamlin's committee is charged with the responsibility of trying to match this year's fine program at the Tenth Annual meeting of the Missouri Academy of General Practice to be held at the Chase Hotel, St. Louis, on Saturday and Sunday, October 18 and 19, 1958.

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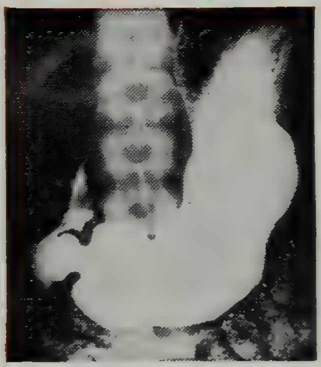

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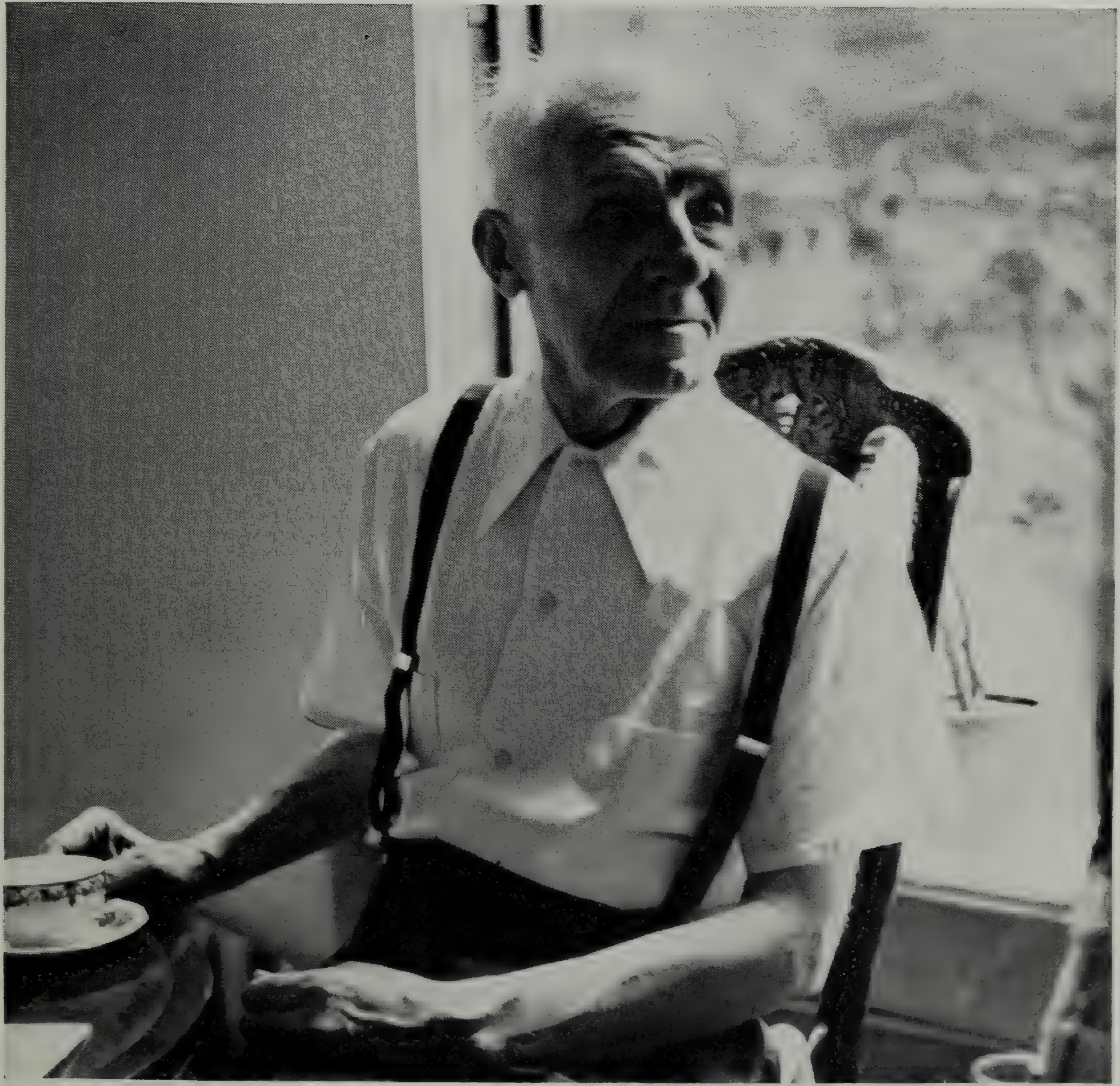

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BOOK REVIEW

Practical Pediatric Dermatology. Morris Leider, M.D., Associate Professor of Dermatology and Syphilology, New York University Postgraduate Medical School; Visiting Physician, Bellevue Hospital; Associate Attending Physician, University Hospital, New York University-Bellevue Medical Center; Diplomate of the American Board of Dermatology and Syphilology. With 280 Photographs and 13 Drawings. The C. V. Mosby Company, St. Louis. 1956. Price $10.50.

The addition of this text on dermatology and more specifically devoted to skin problems of the "little ones" is welcomed.

There has been a need for someone to represent skin diseases focused on the common dermatoses seen in this age group. It is written strictly with the thought that the problems of diagnosis, treatment and prognosis should be in terms of the pediatric patient, the family and physician.

The annotated formulary of 101 useful dermatologic preparations for topical application in a 19 page section is attractive because of the concise and departmentalized system used.

For the doctor who constantly is confronted with a dermatoses not quite the expected size, shape, distribution, color, contour, nor the agent involved, numerous tables of differential diagnosis are a relief to the usual process of "thumbing through" a text looking for a picture which may or may not fit his patient.

As is the physical defect of all dermatologic texts, pictures illustrating any one disease in Leider's book just cannot qualify for bringing out all the characteristics of the live model. The author seems to be acutely aware of this shortcoming by having a wealth of illustrations with above average photography. D.F.E.

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